ĵ.
April 1
đ,
Œ'i
ŝ
ļ.
T.
E

<110>	Young et al.
<120>	207 Human Secreted Proteins
<130>	PZ007P1
<140>	Unassigned
<141>	1998-12-04
<150>	PCT/US98/11422
<151>	1998-06-04
<150>	60/048,885
<151>	1997-06-06
<150>	60/049,375
<151>	1997-06-06
<150>	60/048,881
<151>	1997-06-06
<150>	60/048,880
<151>	1997-06-06
<150>	60/048,896
<151>	1997-06-06
<150>	60/049,020
<151>	1997-06-06
<150>	60/048,876
<151>	1997-06-06
<150>	60/048,895
<151>	1997-06-06
<150>	60/048,884
<151>	1997-06-06
<150>	60/048,894
<151>	1997-06-06
<150>	60/048,971
<151>	1997-06-06
<150>	60/048,964
<151>	1997-06-06
<150>	60/048,882
<151>	1997-06-06

<150>	60/048,899
<151>	1997-06-06
<150>	60/048,893
<151>	1997-06-06
<150>	60/048,900
<151>	1997-06-06
<150>	60/048,901
<151>	1997-06-06
<150>	60/048,892
<151>	1997-06-06
<150>	60/048,915
<151>	1997-06-06
<150>	60/049,019
<151>	1997-06-06
<150>	60/048,970
<151>	1997-06-06
<150>	60/048,972
<151>	1997-06-06
<150>	60/048,916
<151>	1997-06-06
<150>	60/049,373
<151>	1997-06-06
<150>	60/048,875
<151>	1997-06-06
<150>	60/049,374
<151>	1997-06-06
<150>	60/048,917
<151>	1997-06-06
<150>	60/048,949
<151>	1997-06-06
<150>	60/048,974
<151>	1997-06-06
<150>	60/048,883
<151>	1997-06-06
<150>	60/048,897
<151>	1997-06-06

<150>	60/048,898
<151,>	1997-06-06
<150>	60/048,962
<151>	1997-06-06
<150>	60/048,963
<151>	1997-06-06
<150>	60/048,877
<151>	1997-06-06
<150>	60/048,878
<151>	1997-06-06
<150>	60/070,923
<151>	1997-12-18
<150>	60/092,921
<151>	1998-07-15
<150>	60/094,657
<151> `	1998-07-30

<160> 1227

<170> PatentIn Ver. 2.0

```
<210> 1
<211> 733
<212> DNA
<213> Homo sapiens

<400> 1
gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg
aattcgaggg tgcaccgtca gtcttcctct tccccccaaa acccaaggac accctcatga
tctcccggac tcctgaggtc acatgcgtgg tggtggacgt aagccacgaa gaccctgagg
180
```

```
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg
                                                                         240
 aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact
                                                                         300
 ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg
                                                                         360
 agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc
                                                                         420
 catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct
                                                                         480
 atccaagega categeegtg gagtgggaga geaatgggea geeggagaac aactacaaga
                                                                         540
 ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg
                                                                         600
 acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctqc
                                                                         660
 acaaccacta cacgcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc
                                                                         720
 gactctagag gat
                                                                         733
 <210> 2
 <211> 5
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> Site
 <222> (3)
 <223> Xaa equals any of the twenty naturally ocurring L-amino acids
 <400> 2
. Trp Ser Xaa Trp Ser
 <210> 3
 <211> 86
 <212> DNA
 <213> Homo sapiens
 gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc
 cccgaaatat ctgccatctc aattag
                                                                          86
<210> 4
 <211> 27
 <212> DNA
<213> Homo sapiens
<400> 4
gcggcaagct ttttgcaaag cctaggc
                                                                          27
<210> 5
<211> 271
<21.2> DNA
<213> Homo sapiens
<400> 5
ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg
aaatatctgc catctcaatt agtcagcaac catagtcccg cccctaactc cgcccatccc
                                                                         120
gcccctaact ccgcccaft ccgcccattc tccgccccat ggctgactaa ttttttttat
                                                                         180
                                                                         240
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt
                                                                         271
ttttggaggc ctaggctttt gcaaaaagct t
```

	<210> 6						
	<211> 32						
	<212> DNA						
	<213> Homo	sapiens					
			•				
	<400> 6						
	gcgctcgagg	g gatgacagcg	atagaacccc	gg			32
	<210> 7						
	<211> 31						
	<212> DNA						
	<213> Homo	sapiens					
				•			
	<400> 7						
=1 ;	gcgaagctto	gegaeteece	ggatccgcct	Ç			31
=)							
===							
	<210> 8						
map :		-					
.	<211> 12						
XI	<212> DNA			•			
T I	<213> Homo	sapiens				•	
			``				
 -	<400> 8						
Li	ggggactttc	: cc			•		12
							
	<210> 9						
ka,	<211> 73						
=======================================	<211> /3						
							
	<213> HOMO	sapiens					
					•		
	<400> 9						~
	gcggcctcga	ggggactttc	ccggggactt	tccggggact	ttccgggact	ttccatcctg	60
	ccatctcaat	tag					73
	<210> 10	•					
	<211> 256	•					
	<212> DNA						
	<213> Homo	caniene					
	\Z13> 1101110	adbretta					
	.400- 10				,		
	<400> 10						60
		ctttcccggg		-		-	60
	_	gcaaccatag	_				120
		cattctccgc			_		180
	ggccgcctcg	gcctctgagc	tattccagaa	gtagtgagga	ggcttttttg	gaggcctagg	240
	cttttgcaaa	aagctt					256
		•					
	<210> 11						
*	<211> 2526						
					•		
	<212> DNA						
	<213> Homo	sapiens					
	<400> 11					•	
	gacaggctat	ccgagaatct	gagagctggg	cccggcaatt	cctccagyta	cccttgtgac	60

180

240

```
ttgrggrctt gagaatgggt cagggactcc aggccaagtc caacagagac cccaaaccca
ccacacacca gcagccacaa cctcaccacc aacaaagagg acttttgtgg ggccacaagt
                                                                      240
                                                                      300
aagaggtcat ttctggaatg gactcagacc tttaaacagg agagttgagc acttccagks
                                                                      360
agtttttaag caaggcatgg ggaacaggga atagaacctt tcaaagaggt tgcccagaga
                                                                      420
aaagctgggc ctcttgcatt cggcttcctt ggagcagcct cttctggcag aaagccatca
ggtgctcaat catcttctcc tggccaaggc tctgaccatg cttagtactg gaatagaggt
                                                                      480
                                                                      540
ggccaggccc ccagcgactc ttcttggcct gatgtttgtc ctcacaggca tgccacgtgg
cctgagatga ttcagaacaa atcatgctaa ctttgaatcc atccagccac ttgcaaatga
                                                                      600
                                                                      660
taatcagaag tcagcttgtt cactgttaga aagaaactaa caaaagagaa cccagagcaa
                                                                      720
tctagaatct ttgagtgctt ggctttccaa ggatactgcg gagactctgg ccaagctgat
                                                                      780
qamcttctga artgtcactg gcaccatatg caacaagaac caccattcac tgagtagcta
atgggtttgg ggcctgggac attccatctg aggtccttcc tgaacatgtc actccacagc
                                                                      840
agaggaccgg ttgcagctta cccagaacca ctcctccagg agagctggat gttttgcgtg
                                                                      900
caacaccttg agcactgact gctattgttc aaaaaaagcc tttgctgcat tcggaggact
                                                                      960
geocegtgee etgaggtgae tteetaacta tgtggtttea ttagegaatt tatttttgt
                                                                     1020
gctgggtgga catttgtatt ttgttaggtt gctgtttaag ctcaagtttg ctgtgctctc
                                                                     1080
tgcagctaca aaacatcttg gcatatttaa gaktggcttt tataaatagc tttattctga
                                                                     1140
                                                                     1200
tattaatcag attcccaact ttactgagaa ttaaggactg gggtacttta aagaaatgca
aatagcaatt gaagaaccac tgctgcaggt ggtagccctg gctagactga attacactag
                                                                     1260
aaatcagcca gaaggaagcg teettgggat eecagateae tettttttt ttttttta
                                                                     1320
aaaggggcag ccccttgatg gctcatctct ctgaataaca gttacgtctt catatcgata
                                                                     1380
ccagatgeet tetteateat gecaetgaag ccaeteacea cetteaagaa catgecaace
                                                                     1440
totgtcagat toacttacco acaaacaagg aggcacgttt ggcacaaagt gttgtcctcc
                                                                     1500
aggtccaagt ggactctaca gagtgcttga cctcaacaca ctggattcca ggtggactgg
                                                                     1560
                                                                     1620
accaagagca ggcaaagaca cgggaactga aaaactccac agggtttgga gaatagaaat
qaaaagccac gtcatataac tcaagaataa atggtgtttt ggaaatttta aaattatcat
                                                                     1680
cgaaggtggt gaaactattt caggcccaaa tgaaaggaaa tcgccagttg gggatgaaat
                                                                     1740
cacagageet gtgttttatg atatggttgg atgtecactg atgaaatttt aaaggagttt
                                                                     1800 .
catttttaaa agtgcgcatg attctacata tgagaattct ttaggccaag aaactgtcct
                                                                     1860
tggctcagag gtgttgggaa ttaaagcaga gagaagccat tcgtgatgct tagaaccaag
                                                                     1920
gatggtcatg tacacaaaga ccatcgagac ggccattctt gtttacaaaa cacttaccaa
                                                                     1980
                                                                     2040
gaaagcactt tgtaggggaa ctttagtaag ttcttctcat ttcattatgt ttcttccaag
                                                                     2100
gaaacaggag agactgaatt aataattete tettteetet taageaettt taaaataata
                                                                     2160
aagtacatct tgaaatttgg gggggcatct ctgatttaaa aaaagaaaaa ggctgcttga
tgtatgttat gcagagacac tctgcctctg gtggctgcag agcaataccc aagcctcatt
                                                                     2220
tggaaggctc aacatttgga attgcacttt aattgattaa tcctcaattc atgtggcctt
                                                                     2280
acgggatggt gggtctggga ccccaattca ttcttatctg ccaaagaatt atctagaagc
                                                                     2340
acatcaaata ccagcacccc acctgcacaa tgggggtgga aaacttttgt atccctaagc
                                                                     2400
atattatttt atagtgtctg ccatgccatg tggaaatact ttatttttaa cctcaggatt
                                                                     2460
2520
                                                                     2526
<210> 12
<211> 1131
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (839)
<223> n equals a,t,g, or c
<400> 12
                                                                       60
cactgcacca gctttgttat ctgtaaaatg atgataatac caacaccttc ttcttggggt
actgaagatg agagaacatg atatgtgtaa agtgccttcc acaataccca gaacatagca
                                                                      120
                                                                      180
aacatgtaat qaatgtagta atagtaatta ttttattttc ttttgattca gttgggacta
```

tgttcagctg taacagaata cccaaaataa ctgttttaaa caaattaaag tttwgttgtg

```
300
aagttttgtt acgaattcag acaatccagg gcttttatag atgcaccagg atcagcaggt
acaaaggcat ctttcctgat ttctgccagt ctcaatgcat gggttgcaat ccagartcca
                                                                        360
rgatggcagt tccagccctg gttacgccca tattagcaca cagaaagaaa gagaaaggga
                                                                        420
tgtgcctctt cactttaatc atagctccca ctagatgcac ccactacttc tgctgatact
                                                                        480
                                                                        540
ccattagcta atgcttgctt acatggtcac acttagtttc cagagagaca tgtctggaca
gtcatgtgct caattaatat ccaagtgtcc aattactgag aaaaaaagaa actagcacct
                                                                        600
                                                                        660
ttgcttggtt gcattcctct tagcataagc cacattcttt ttatgaagtt gtcctcagtt
acttggatgc ctcagttgtc ctttcawtta gaaawgcycc tkggacaycc tgaawctgac
                                                                        720
ttcttttgtc atcagcacca tcactaccac tgccytcttc aaagccacca cgttctgtcc
                                                                        780
ccaggatggt tgcaacaacc accataggga ctttttgcct tctacttcca cacaatagnc
                                                                        840
cagagtaagc ttttgaaaat gtaggtcaga tcatgtctct ctcttcctct tcaaaaccct
                                                                        900
                                                                        960
cccgatggct tttcatatta ctcaaaagaa aacctaaaac tttgctgtga gatctatgtg
accoggetta ttetteetet taetttatet etgtattget etteeteact etaeteeage
                                                                       1020
catcccacct ccttgctgct tgtcctatac tcctaaaaaga agttcagtct tcccttatga
                                                                       1080
                                                                       1131
tatttgcact taaaatagaa aaaaaaaaaa aaaaaaaaact cgaggggggc c
<210> 13
<211> 941
<212> DNA
<213> Homo sapiens
<400> 13
ggcacgagta gcatttcatt taatctgcag gtatattctc ccaacagttt attgtcatgt
                                                                         60
                                                                        120
gatgtcctca gccaagattg traggcagag aggagctgtc ccaacctact ataccaccga
ggctggagag atcatatttt tggtattaaa ctggagtctc tccatccttc acattgttga
                                                                        180
tgtcctctgt agcaaaccgg aaaagtcagt gacagaagat gccgctagcg gtttgagcca
                                                                        240
                                                                        300
gagaatgaca gctctggttt ggagaaaagg gccggatggt ggctctagaa agcccatcct
tetgetette tttttetee ecettatatt gtgettteat teatteatte atteateaaa
                                                                        360
catttgttga gcacctatta tgtgtcaage tetgtgctag ectetggaaa acetgecete
                                                                        420
atgtagetea etgtggagta ggagaaacaa tgaetacaet atgataagea egggttgtea
                                                                        480
gggtctcaca gagcagtggc ccctcatcca gaccgatgag gtcaaagaag gcatccaggc
                                                                        540
gaggatggtg tcagagctaa ctgaagaatg agagggagct gcaccascag gggttggaac
                                                                        600
tgaaggtggc agtgcctgga gtcttgattc cagcagaggg agagcagtct gtgaaaaggc
                                                                        660
accaagggtg ggagagggca gagcacatgg aggaacttca ggtagttctg gatggcsctg
                                                                        720
gggcaaagct agagaggtaa gaagaatcta caaatgttcc tcgagttaca tgaacttcca
                                                                        780
                                                                        840
tcccaataaa cccattggaa acgaaaaatt taagtcagaa gtgcatttaa ggctggtccg
agtagaatga tttttacaac gaattgatca caaccagtta cagatgtett tgtteettet
                                                                        900
                                                                        941
ccactcccac tgcttcacct gactagectt taaaaaaaaa a
<210> 14
<211> 843
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (19)
<223> n equals a,t,g, or c
<220>
<221> SITE
```

```
<222> (87)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (89)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (525)
<223> n equals a,t,g, or c
<400> 14
cnagggataa ccccaaagnt gggaaataaa ccctcaatta aagggggaac caaaaagctg
                                                                         60
ggaagtteee eecegeggtg geggeengnt etaggaacta gtggaateee eeggggetge
                                                                        120
agggaattcg gcacggagtg ggaatgttgt ttgtatgata ctatttccac aawatgcatt
                                                                        180
                                                                        240
gagacttggt ktgtggccta ggacatggtc aattctttyt aaatattccg tgaatttctt
tagtgcatat teteegatgg gggetgtggg gacagagtte taaatatgee cattagatta
                                                                        300
aatctcttca ttctgttgct cacatcttct atatccttat taatctgtca atctcttcaa
                                                                        360
gagaggtgtt attaaaatct ctcactgtat gtgtcacttt gcccttaaaa ttctgatgat
                                                                        420
ttgctttata aatggttata accattttcc aggaagaaca ttaaagaact ttccattggc
                                                                        480
attatccagt ttccctcaaa atactggttt tttttatttt ggctnctaag cagctatgaa
                                                                        540
tccagtttct cagaagccct tgtctcaagg catttgtttc cagattacct tgttagcatc
                                                                        600
cacactatgg gctattttag aaaaacaaaa aaagtatcaa aatcatatag ctatgatttt
                                                                        660
cctgtgcttg aaggagcctt aaagctcatc tagtccagcc agtatttgtt catccaaatt
                                                                        720
ctgccaagaa atctctattg tcaagatatt ctttaccatc tttgggacat tctcattatt
                                                                        780
agaaacaaat cctaagaaga aattctgcca takacaaccc atccgttctt taaaaaaaaa
                                                                        840
                                                                        843
<210> 15
<211> 1018
<212> DNA
<213> Homo sapiens
<400> 15
                                                                          60
ctgtaatttt taattttcat ataccgtgct ttgattctaa ttttattttt tgagttctct
gaaggttaca tatacagagt gcttcaggaa tgatcatttt gttattattc atgcttctta
                                                                         120
acaatgttgt tttagtccaa gaagataatt gccagagaaa gaatacagtg caggaaagaa
                                                                         180
                                                                         240
gargctggag ccagtggtga agarggattg agargacaga cattgtggga atgaaatcat
gaataatcgt gtttttgaat tgtccaaaaa cttctacaaa ccatgaaatg ttggagttta
                                                                         300
aatctaattg ttgaaaaatt ccccacattc cttgtatccc ttaggttgag cataattcca
                                                                         360
catccgtgga ctgatgcact tcccaagagg gggcctcatt aactcttccg aggcagcagc
                                                                         420
                                                                         480
agcaagggca cccctcctt tccccccaca ccccayttct catggctctt ctttctctca
tctcatgctt aggttagaaa agggcacaag gtaaggaagc ccttgggaat aggctgaatc
                                                                         540
tggctatcta atttggtgcc aaatacttaa tgtgcttgaa tttaaaaaca gcaaacatgt
                                                                         600
agaaaggtaa ttataattat gaggccagtt ctttaagcta gctttttttc ccctctcaaa
                                                                         660.
cagcatattg gcttggatgt cagcaggaga aagtgttttt tgcaatacac ataatgcata
                                                                         720
                                                                         780
tatggtcctg ttagcaatct atagaaaata gatattgctc attaaggtaa atatttttgt
tgatgaatga tctggaatgg tctggacttg ttgtgtgaac aggaaattgc tctgtaggct
                                                                         840
ttgacttgtg aggtaaagag tgaggctggt aagattaatt aaagtaaata ctgtgacaat
                                                                         900
aggatgtcaa aaccaaaaac gtgtttctga aactcaagga attaatgaca catagggaag
                                                                         960
tttttgccat attaagcata gagtaggaga ggcaagtcaa gaataaaaaa aaaaaaaa
                                                                        1018
```

<210> 16

<211> 661

```
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (25)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (478)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (661)
<223> n equals a,t,g, or c
<400> 16
                                                                         60-
tttaagaaat tagtgaatcc ccggntgcag ggaattcggc acgaggagga ggccgtcagc
tggcaggagc gcaggatggc agctgytccc ccgggttgca cccccccagy tctgctggac
                                                                       - 120
ataagytggt taacagagag cctgggagct gggcagcctg tacctgtgga gtgccggcac
                                                                        240
cgcctggagg tggctgggcc aaggaagggg cctctgagcc cagcatggat gcctgcctat
gcctgccagc gccctacgcc cctcacacac cacaacactg gcctmtccga gctgctggag
                                                                        300
catggagtgt gtgaggaggt ggagagagtt cggcgctcag agaggtacca gaccatgaag
                                                                        360
                                                                        420
gtgcgcaggg cagggctcgg acctacccca ggaatgtcct gccctgggaa tgacaacaca
gtccacacca tgcacgggga ggcaaacagg ggcagctgac ccagcccagg ggtcaganga
                                                                        480
ggtcttgccg aggaagtggc agctaagctg atacctgata tgcacwagkc agccargygg
                                                                        540
agacaggcaa ggaagaagct tgttttgagg acagaatttt ctagatcact cagcaccatc
                                                                        600
                                                                        660
tggcttttgg ggctttttgt tttattttgt ttttgagacg gggtctcgct ctgtcgccca
                                                                        661
<210> 17
<211> 553
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (507)
<223> n equals a,t,g, or c
<400> 17
                                                                         60
ggcacagggc tatttgcccc tctctccaca tgacagaact gctctaagtt tctttgctgc
                                                                        120
tottotcago tgtcagacgg cttgctgctt gttttccaca ccaccatgtc tattctttgc
tgtccttwac tctgcctgtt tttttccttt tgtatttctt ctggctcttg tcccttttcc
                                                                        240
cacgigtowc agotttectt tattgccact ticagicaga gcagiccigi gcttctggtg
                                                                        300
ccggcataca atacttactt gagtttcttg gcttttcttg actgtgcatc tcttacttca
acataggaat agcctgtcat agaatttctc cagttccagg gctcaagagg gagagtgcca
                                                                        360
                                                                        420
gaaaattgag actgttttcc ctgtcttgga ttgaattcat aaagcaaaac cagtgtttgt
gtgagggttt gctgtgtcat gcctataggt tgtttgggtg caaacctata gaatccagcc
                                                                        480
tgcgaaaaga aagraaccag agaatancag catcagaaca atgcttgaca tcatttctca
                                                                        540
                                                                        553
atcaagcagt cca
```

<210> 18

<211> 869

```
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (635)
<223> n equals a,t,g, or c
<400> 18
                                                                         60
ggcacgaget gccaacactg aggtettegt ggetteteac atctagatgt atccetetea
aatctatcct ctatccaggc accagattga ggtatctaaa atgtcaactt tccagttact
                                                                        120
                                                                        180
ccttcttata ctagcccaat caacttacaa gataaagtcc aagccccttc atatgacaaa
ccacaccctg cttaactctc caggtttgaa tccttcatct cctactttaa actttaaaac
                                                                        240
ccagcagcac gaaagtgtct cctatgcatg ttgccatatg cgttctctcc atcatgcatt
                                                                        300
tgcctgagca agatgtcttg agttaacatc ttattcttta agactcattg tggtggtaga
                                                                        360
                                                                        420
cagcetttaa taaeggatee ttggeeagge acagtgaete acacetgtaa teecagaaet
ttgaaaggcc aaagaaggaa gaaagcttga ggccagtagt ttgagaccag cctgggaaac
                                                                        480
                                                                        540
agagagatat cccatctgta ccaaaaattt aaaaaaatat tagcagggag tagtggcatg
                                                                        600
cacaagtggt cccagctcca tgggagastg aggtaggaac atcacttgag cccaggaagt
caaggctgca gtgaaccatg atcagaacat tgcantccag cttgggtaac agagtgagac
                                                                        660
cttaggtcag aaaaatgaat aaataagcat aaaattttaa aaacttagcc aggcatggtg
                                                                        720
gcacacatct gtggtccctg ctacttagga ggctgaggtg agaggatcct tgagcccagg
                                                                        780
aggtcaacac tacagtgage tatgattgtg ccactaaact ccaacctggg tgaaaaagca
                                                                        840
aaaccctgcc aaaaaaaaaa aaaaaaact
                                                                        869 .
<210> 19
<211> 959
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (930)
<223> n equals a,t,g, or c
<400> 19
ggcgagccga gatcgtgcca ttgcactcca gcctgggcaa caagagtgaa actctgtctc
                                                                         60
aaaaaaaaaa aattataata ctatatgcca taaaatgaca tttcatattt aaagagtttt
                                                                        120
ttaaaactct tgtattcaca tgccataatt tgaaacccta tttcactgaa tgagaatggt
                                                                        180
atctgttgtc ctcatttttt catttttatc cttaacaatt tccaccacag ccagtgcata
                                                                        240
                                                                        300
taatggcaat gacacccaqq qatqqaatqa taaqttccat crcmgctcag tcaagacqca
gacttgatgt ggccccaaca acagtcaata atggagtctc caaaataaag ctctatagga
                                                                        360
                                                                        420
aaggtaaata cccgctgcac aagaaaccac agcatctagg ttctaacccc atctctatga
                                                                        480
agagettget gggagagttt tgacattwaa caatetgtet gatkgecaat tttyttette
tataaaatga taatgttkga ytcaaagatc caaagtcaat tcatggtcta aaacttaatg
                                                                        540
                                                                        600
atttttttag gttttgkgac atttcactgt acactgtagt aatttatatc ttattttccc -
                                                                        660
actaatttag aaaaatatyt aaatgatcct taattggcaa tgggtcctaa gaattttgtt
                                                                        720
ttaaatccct gttacccaaa agagcccttt tttgtatctc gcagtagtta caaggatctt
                                                                        780
tctaaatctt aaaaaaaaa aaaaaagaaa gaaagaaaag aaaagaaaaa aagtcagccg
ggcgtggtgg ctcatgcctg taatcccagc actttgggac caaggtggac agatcacgag
                                                                        840
gtcaggagat ggagaccatc ccggccaaca tggagaaacc ctgtctctac taaaaaaaaa
                                                                        900
aaaaactcga ggggggcccg gtacccaatn cgccggctag tggtcgtaaa acaatcaaa
                                                                        959
```

<210> 20 <211> 1446

<212> DNA

<213> Homo sapiens

<400> 20 cggggcaggg ctgtgtggca ccgccaggga gcgggcccac ctgagtcact ttattgggtt 60 120 cagtoaacac tttcttqctc cctgttttct cttctgtggg atgatctcag atgcaggggc tggttttggg gttttcctgc ttgtgccaag ggctggacac tgctgggggg ctggaaagcc 180 240 cctcccttcc tgtccttctg tggcctccat cccctcatgg gtgctgccat ccttcctgga 300 gagagggagg tgaaagctgg tgtgagccca gtgggttccc gcccactcac ccaggagctg 360 gctgggccag gaccgggaga gggagcactg ctgccctcct ggccctgctc cttccgcagt 420 . taggggtgga ccgagcctcg ctttccccac tgttctggag ggaaggggaa ggagggggtc ttcaggctgg agccaggctg ggggtgctgg gtggagagat gagatttagg gggtgcctca 480 tggggtgggc aggcctgggg tgaaatraga aaggcccaga acgtgcaggt ctgcggaggg 540 gaagtgtcct gagtgaagga ggggaccccc atcctggggg atgctgggag tgagtgagtg 600 agatggctga gtgagggtta tggggagcct gaggttttat gggcctgtgt atccccttct 660 occggececa geotgectee etectgeceg eetggeceae aggtetecet etggteeetg 720 tecetetggt ggttggggat ggageggeag caaggggtgt aatggggetg ggttetgtet 780 tctacaggcc accccgaggt cctcagtggt tgcctgggga gccggacggg gctcctgagg 840 ggtacaggtt gggtgggccc tccctgaggg tctggggtca ggctttggct ctgctgcctc 900 tcagtcacca agtcacctcc ctctgaaaat ccagtccctt ctttggatgt ccttgtgagt 960 1020 cactetggge etggetgteg tecetectea gettettgtt eetgggacaa gggteaagee 1080 aggatgggec caggectggg atcccccace ccaggacccc caggecccct cccctgctgc 1140 tttgcggggg gcagggcaga aatggactcc ttttgggtcc ccgaggtggg gtcccctccc agecetgeat ecteegtgee stagacetge tecceagagg aggggeettg acceaeagga 1200 1260 egtgtggtgg egeetggeae teagggaeee ceagetgeee cageeetggt etetggegea 1320 totottocot ottqtocoqa agatotgogo ototagtgoo ttttgagggg ttcccatcat 1380 ccctccctga tattgtattg aaaatattat gcacactgtt catgcttcta ctaatcaata 1440 aacgctttat ttaaagccaa aaaaaaaaaa aaaaaactcg agggggggcc cgtacccaat 1446 tcgcca <210> 21 <211> 1471 <212> DNA <213> Homo sapiens <220> <221> SITE <222> (1470) <223> n equals a,t,g, or c <400> 21 caaaaaataa taatgataat ttaaaataaa taagtaacta ataaaaagat tttatatccc 60 agtottatga tgttggttgg caaggotaga taaaaagatg ttagaatgaa agaacatatt 120 tttagtgata tgtaaatgaa ggattotaca atagtoatat atttttatat gaatgaatgt 180 tgggttgggc tggagaggta tgtgtgtgta aatataaagg tctcacattc agagtatagc 240 tctgaaataa tggaactcat gtctacaatt caacatgcat ctgtatagtt acatctcatg 300 taaatataca cagacatatt ttgcagccag taattgacag ttaatgtcca aaacaggtga 360 ttgataggta acagaaatta gataaccacc aattttgccc aagagaaaga ctagaaggac 420 taaaagcagt tgaatgtatg gtactgacat tgtcataagc agtctgataa ccagtttatt 480 540 gaaacgtgtg cattaacaga gaatttaatt ttaaacccat aatttctcct atccattaaa 600 atattataat tgttagtagt atgaaaccaa caggaaatgt tttttaatca tttagtgagg 660 tgattcattt gtttcatggg caaacactat ccaggaaaag ccttgcttgc ctgtttccca aagageteta agaaatagaa teaagtgtaa aatggtteag accatteagg atttettgte 720 780 actettetea acceegatet teetgttatt actgatgttt gaaaccetgt cattageece ggeetggtta aageeeetca gagteaeete teatteatag caatagaatt caaceeeaag 840 tggttgatgg tgtccccagc acagccgaga gacctgatct ctggattcag tgcttttagc 900 tettegagtt taccetaaga tacetteggg caatattttt aaccaaccca aaagetette 960

aggtcatttc tgaagaggac aaggtgaatc ttggcttgga acaccatttt tgggctcttg

```
1080
ctactgaatg aatcagaaag gaattttttc tgaagagcat tagaaagtaa aggagatgtt
aaaataagtt cttgaagtat gttttatatt tatctaaaac actgatttta aaagtttaca
                                                                       1140
ttcaaatgtg tattcaaaag aagtactgat ttgtaattat tatagtttgt gtgtatcatc
                                                                       1200
cccttttaac cgtgcctaac aactgtactt aaattttgtt ttcctagtgt aacaaatgtt
                                                                       1260
tcccataaga ttttctagag ccaaataatg ggagtgaaaa attccttaag tgttatataa
                                                                       1320
gaaaatatat tagaaaatca gctttggatt atacgatttc taaaatatac taatacagaa
                                                                       1380
tootoagtaa tatgttttga attggatttt ttotoagaac tgttacataa taaataatac
                                                                       1440
atcaaccaga aaaaaaaaaa aaaaaaattn c
                                                                       1471
<210> 22
<211> 1402
<212> DNA
<213> Homo sapiens
<400> 22
agggacgtct tgcctgagga gatgcccatt tctgtcctgg rttaccctca ctgcgtggtg
                                                                         60
catgagctgc cagagctgac ggcggagagt ttggaagcag gtgacagtaa ccaattttgc
                                                                        120
                                                                        180
tggaggaacc tcttttcttg tatcaatctg cttcggatct tgaacaagct gacaaagtgg
                                                                        240
aagcattcaa ggacaatgat gctggtggtg ttcaagtcag cccccatctt gaagcgggcc
                                                                        300
ctaaaggtga aacaagccat gatgcagctc tatgtgctga agctgctcaa ggtacagacc
                                                                        360
aaatacttgg ggcggcagtg gcgaaagagc aacatgaaga ccatgtctgc catctaccag
aaggtgcggc atcggctgaa cgacgactgg gcatacggca atgatcttga tgcccggcct
                                                                        420
tgggacttcc aggcagagga gtgtgccctt cgtgccaaca ttgaacgctt caacgcccgg
                                                                        480
cgctatgacc gggcccacag caaccctgac ttcctgccag tggacaactg cctgcagagt
                                                                        540
gtcctgggcc aacgggtgga cctccctgag gactttcaga tgaactatga cctctggtta
                                                                        600
gaaagggagg tettetecaa geceatttee tgggaagage tgetgeagtg aggetgttgg
                                                                        660
ttaggggact gaaatggaga gaaaagatga tctgaaggta cctgtgggac tgtcctagtt
                                                                        720
                                                                        780
cattgctgca gtgctcccat ccccaccag gtggcagcac agccccactg tgtcttccgc
agtetgteet gggettgggt gageecaget tgaceteece ttggtteeca gggteetget
                                                                        840
ccgaaqcagt catctctqcc tqagatccat tcttccttta mttcccccam cctcctctct
                                                                        900
tggatatggt tggttttggc tcatttcaca atcagcccaa ggytgggaaa gctggaatgg
gatgggaacc cctccgccgt gcatctraat ttcaggggtc atgctgatgc ctctcgagac
atacaaatcc ttgcctttgt cagcttgcaa aggaggagag tttaggatta gggccagggc
cagaaagtcg gtatcttggt tgtgctctgg ggtgggggtg gggtgtttct gatgttattc
cagectectg ctacattata tecagaagta attgeggagg etectteage tgeeteagea
ctttgatttt ggacagggac aaggtaggaa gagaagcttc ccttaaccag aggggccatt
                                                                       1260
tttccttttg gctttcgagg gcctgtaaat atctatatat aattctgtgt gtattctgtg
                                                                       1320
tcatgttggg gtttttaatg tgattgtgta ttctgtttac attaaaaaga agcaaaaata
                                                                       1380
                                                                       1402
ataaaaaaaa aaaaaaaaaa ct
<210> 23
<211> 1047
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (301)
<223> n equals a,t,g, or c
<400> 23
                                                                        60
ggcacagggg actacaggca cccacgacca tacccagcta attititgtat tititigtag
                                                                       120
agatggggtt tcacgatgtc gcccaggctg gtcttgaact cctgggcttg agcgatcttc
                                                                       180
ccatctttcc atcttggcct cctaaagtgc tgggactgca ggcatgagcc accatgccca
gccaagattc ttattgatta ccatgttgct tcaagaagcc aagccagttt ccaatattcc
                                                                       240
                                                                       300
ccatttgctg gagtcttggt actttgggta gaagcaactg gtaaattgtt aattggaaca
```

```
360
nttggtggtg tagataacca cgtatggcca aacctagagc atctaggctc acaattacta
                                                                       420
 tcctgacttg ataacaagtg ttctgatatt aacctgaaaa tgggaataat gccaaatctg
                                                                       480
 tgtaacttaa catctatata cacagtgggg agaactgaag ttattaaacc tggaatctct
                                                                       540
 gtgatcaagg ctaacagtag ttatctaaga agcaaaggac ctacaattct tagacttgga
                                                                       600
 gtcatattct ttaaggacgt gttctgaaac tatatcaagc atctggttte cacgtatttc
 tccctcagaa attatgaagt acaagtaaaa atgaaggtac agggtaagac acatgctgct
                                                                       660
 ttcttgctct tgagtggaga cagttttcca gccatcttaa ccccttwaca caaaacaatt
                                                                       720
                                                                       780
 tgtgttttat agcaaataag tgactcaaca taatttcaat atgatgttta tccaccagta
                                                                       840
 ctttcctttc agcttctagt cccataartg gtttgtgaag tcatcggtta cattagccaa
 gataggccta gacttgaagt ctagaatgtt tttcccacta tatgccaaag tagaatgtgg
                                                                       900
 gtatctcagg gtcatttttg ttgttcaatt tcccacctgt acagttgtta tgattcactt
                                                                       960
 1020
                                                                      1047
 cgagggggg cccggtaccc aaatcgc
 <210> 24
 <211> 990
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (834)
 <223> n equals a,t,g, or c
 <400> 24
                                                                        60
 ttggaaaggg tctagctctt tctcattcac caactatatt agaagcactt gagggaaatt
                                                                       120
 taccactcca aatccaaagc aatgaacagt cttttctgga tgattttatt gcctgtgtcc
                                                                       180
 caggatcaag tggtggaagg cttgcaaggt ggcttcagcc agattcatat gcggatcctc
 agaaaacatc tttgatcctg gaataaggat gatattcgtt gtggttggcc taccaccata
                                                                       240
                                                                       300
 actgttcaaa caaaagacca gtatggggat gtggtacatg ttcccaatat gaaggtaatt
 ataactggat taaattagca gacatctata tactggctgc aatgactgat aaaattttag
                                                                       360
                                                                       420
 aaatgccaag tgctgagrgt ccatttgttc taccctcttt atataaaggg tgatgctgaa
 agtttgttta aatgacttgt ttatattaat tagtccccaa gtgtccaagt tacacctgtt
                                                                       480
                                                                       540
 ttttttgtga gtttgttctt tacattttgc tacctgttac ggggactcaa aggagggata
 agaaagtatc catctaaaga gtgctagaca catacagtga agcccctcaa tatgtattga
                                                                       600
                                                                       660
 ttgaataaat gcatgaaaga atacattttt aaattttgtg tatagttttg aaagactcaa
 gtacgttctg tgtttggtat tactgaaacc acattttaaa aataacactc attaagttag
                                                                       720
                                                                       780
 aaatatatga gtttagattg taaaagaatg aggaattgaa atagttgtat accatattga
 tgaatataga gtttttagga tacctcttac ctgaaatatt aataataatg tttncagagc
                                                                        840
                                                                       900
 atattataca taattatttg tgatttaatc tgttaatatg aatatctcat ttaaaacttt
                                                                        960
 tatttctgaa aaaattatat tgaataaaat tttatatagg cagtccccag ccctttcctc
                                                                        990
 cttcaaagtt gtcttataga gtgattggtt
 <210> 25
 <211> 1208
 <212> DNA
 <213> Homo sapiens
 <400> 25
                                                                        60
 taatcgctac tatagggaaa gctggtcgct gcaggtaccg gtccggaatt ccgggtcgac
 ccacgcgtcc gagcgaaatg gcgcctccgg cccccggccc ggcctccggc ggctccgggg
                                                                        120
 aggtagacga gctgttcgac gtaaagaacg ccttctacat cggcagctac cagcagtgca
                                                                        180
 taaacgaggc gcasgggtga agctrtcaag cccagagaga gacgtggaga gggacgtctt
                                                                        240
 cctgtataga gcgtacctgg cgcagaggaa gttcggtgtg gtcctggatg agatcaagcc
                                                                        300
 ctcctcggcc cctgagctcc aggccgtgcg catgtttgct gactacctcg cccacgagag
                                                                        360
                                                                        420
 tcggagggac agcatcgtgg ccgagctgga ccgagagatg agcaggagck tggacgtgac
```

```
caacaccacc ttcctgctca tggccgcctc catctatctc cacgaccaga acccggatgc
                                                                       480
                                                                       540
cgccctgcgt gcgctgcacc agggggacag cctggagtgc acagccatga cagtgcagat
                                                                       600
cctgctgaag ctggaccgcc tggacctcgc ccggaaggag ctgaagagaa tgcaggacct
                                                                       660
ggacgaggat gccaccctca cccagctcgc cactgcctgg gtcagcctgg ccacgggtgg
tgagaagctg caggatgcct actacatctt ccaggagatg gctgacaagt gctcgcccac
                                                                       720
cctgctgctg ctcaatgggc aggcggcctg ccacatggcc cagggccgct gggaggccgc
                                                                       780
tgagggcctg ctgcaggagg cgctagacaa ggatagtggc tacccrgaga cgctggtcaa
                                                                       840
                                                                       900
cctcatcgtc ctgtcccagc acctkggcaa gccccctgag gtgacaaacc gatacctgtc
ccagctgaag gatgcccaca ggtcccatcc cttcatcaag gagtaccagg ccaaggagaa
                                                                       960
                                                                     1020
cgactttgac aggctggtgc tacagtacgc tcccagcgct gaggctggcc cagagctgtc
                                                                     1080
aggaccatga agccaggaca gaggccagga gccagccctg cagccctccc cacccggcat
                                                                     1140
ccacctgcat ccctctgggg caggagccca ccccagcac ccccatctgt taataaatat
                                                                      1200
1208
aaaaaaa
<210> 26
<211> 1922
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1022)
<223> n equals a,t,g, or c
. <400>. 26
gtgctgcgct actgagcagc gccatggagg actctgaagc actgggcttc gaacacatgg
                                                                       60
gcctcgatcc ccggctcctt caggctgtca ccgatctggg ctggtcgcga cctacgctga
                                                                      120
tccaggagaa ggccatccca ctggccctag aagggaagga cctcctggct cgggcccgca
                                                                      180
egggeteegg gaagaeggee gettatgeta tteegatget geagetgttg etecatagga
                                                                      240
aggcgacagg tccggtggta gaacaggcag tgagaggcct tgttcttgtt cctaccaagg
                                                                      300
agctggcacg gcaagcacag tecatgatte agcagetgge tacetactgt getegggatg
                                                                      360
                                                                      420
teegagtgge caatgtetea getgetgaag acteagtete teagagaget gtgetgatgg
agaagccaga tgtggtagta gggaccccat ctcgcatatt aagccacttg cagcaagaca
gcctgaaact tcgtgactcc ctggagcttt tggtggtgga cgaagctgac cttctttttt
cetttggett tgaagaagag etcaagagte teetetgtea ettgeeeegg atttaceagg
cttttctcat gtcagctact tttaacgagg acgtacaagc actcaaggag ctgatattac
ataacccggt tacccttaag ttacaggagt cccagctgcc tgggccagac cagttacagc
                                                                      720
                                                                      780
agtttcaggt ggtctgtgag actgaggaag acaaattcct cctgctgtat gccctgctca
agotyteatt gattegggge aagtetetge tetttyteaa caetetagaa eggagttaee
                                                                      840
ggctacgcct gttcttggaa cagttcagca tccccacctg tgtgctcaat ggagagcttc
                                                                      900
cactgegete caggtgecae ateateteae agttécaacea aggetéetae gaetgtgtea
                                                                      960
tagcaactga tgctgaagtc ctgggggccc cagtcaaggg caagcgtcgg ggccgagggc
                                                                     1020
chaaagggga caaggcetet gateeggaag caggtgtgge eeggggeata gaetteeaee
                                                                     1080
atgtgtctgc tgtgctcaac tttgatcttc ccccaacccc tgaggcctac atccatcgag
                                                                     1140
ctggcaggac agcacgcgct aacaacccag gcatagtctt aacctttgtg cttcccacgg ·
                                                                     1200
                                                                     1260
agcagttcca cttaggcaag attgaggagc ttctcagtgg agagaacagg ggccccattc
tgctccccta ccagttccgg atggaggaga tcgagggctt ccgctatcgc tgcagggatg
                                                                     1320
ccatgcgctc agtgactaag caggccattc gggaggcaag attgaaggag atcaaggaag
                                                                     1380
agcttctgca ttctgagaag cttaagacat actttgaaga caaccctagg gacctccagc
                                                                     1440
                                                                     1500 -
tgctgcggca tgacctacct ttgcaccccg cagtggtgaa gccccacctg ggccatgttc
                                                                     1560
etgactacet ggtteeteet geteteegtg geetggtreg eeeteacaag aageggaaga
                                                                     1620
agctgtcttc ctcttgtagg aaggccaaga gagcaaagtc ccagaaccca ctgcgcagct
                                                                     1680
tcaagcacaa aggaaagaaa ttcagaccca cagccaagcc ctcctgaggt tgttgggcct
ctctggagct gagcacattg tggagcacag gcttacaccc ttcgtggaca ggcgaggctc
                                                                     1740
                                                                     1800
tggtgcttac tgcacagcct gaacagacag ttctggggcc ggcagtgctg ggccctttag
```

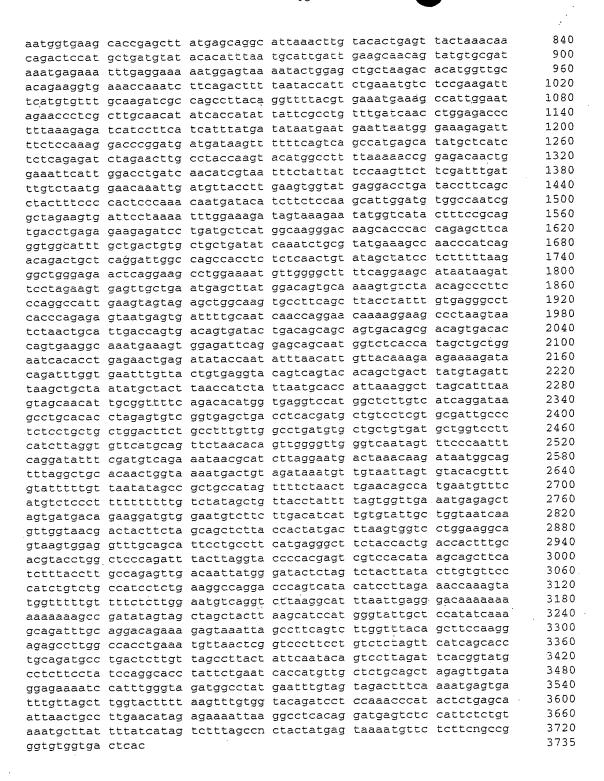
ctccttggca cttccaagct ggcatcttgc cccttgacaa cagaataaaa attttagctg

```
ccccaaaaaa aaaaaaaaaa aaaaaaactc gagggggggc ccgtacccaa ttcgccctat
                                                                       1920
                                                                       1922
aa
<210> 27
<211> 1951
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1892)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1930)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1934)
<223> n equals a,t,g, or c
<400> 27
tegteceeag agegggetga geeceaggeg sagggtggeg ggggageetg ggggageege
                                                                         60
                                                                        120
egecacetee aegggeetet etgagetegg acaceagege cetgteetat gaetetgtea
                                                                        180
agtacacgct ggtggtagat gagcatgcac agctggagct ggtgagcctg cgccgtgctt
cggagactac agtgacgaga gtgactctgc caccgtctat gacaactgtg cctccgtctc
                                                                        240
                                                                        300
ctcgccctat gagtcggcca tcggagagga atatgaggag gcccgcgggc cccagcccc
tgcctgcctc tccgaggaac tccacgcctg atgaacccga cgtccatttc tccaagaaat
                                                                        360
tcctgaacgt yttcatgagt ggccgctccc gctcctccag tgctgagtcc ttcgggctgt
                                                                        420
                                                                        480
totoctgcat catcaacggg gaggagcagg agcagaccca ccgggccata ttcaggtttg
                                                                        540
tgcctcgaca cgaagacgaa cttgagctgg aagtggatga ccctctgcta gtggagctcc
aggctgaaga ctactggtac gaggcctaca acatgcgcac tggtgcccgg ggtgtctttc
ctgcctatta cgccatcgag gtcaccaagg agcccgagca catggcagcc ctggccaaaa
                                                                        660
acagtgactg ggtggaccag ttccgggtga agttcctggg ctcagtccag gttccctatc
                                                                        720
acaagggcaa tgacgtcctc tgtgctgcta tgcaaaagat tgccaccacc cgccggctca
                                                                        780
                                                                        840
ccgtgcactt taacccgccc tccagctgtg tcctggagat cagcgtgcgg ggtgtgaaga
                                                                        900
taggegteaa ggeegatgae teecaggagg eeaaggggaa taaatgtage caettittee
agttaaaaaa catctctttc tgcggatatc atccaaagaa caacaagtac tttgggttca
                                                                        960
tcaccaagca ccccgccgac caccggtttg cctgccacgt ctttgtgtct gaagactcca
                                                                       1020
ccaaagccct ggcagagtcc gtggggagag cattccagca gttctacaag cagtttgtgg
                                                                       1080
agtacacctg ccccacagaa gatatctacc tggagtagct gtgcagcccc gccctctgcg
                                                                       1140
tcccccagcc ctcaggccag tgccaggaca gctggctgct gacaggatgt ggcactgctt
                                                                       1200
gaggaggggc acctgccacc gccagaggac aaggaagtgg ggcgctggcc cagggtaggg
                                                                       1260
                                                                       1320
gagggtgggg caatggggag aggcaaatgc agtttattgt aatatatggg attagattca
tctatggagg gcagagtggg ctgcctgggg attgggaggg acagggcttg gggagcaggt
                                                                       1440
ctctggcaga gaaggatgtc cgttccagga gcacacggcc ctgccccatc ctgggcctta
                                                                       1500
cctcccctgc cagggctcgg gcgctgtggc tcctgccttg atgaagcccg tgtcctgcct
                                                                       1560
tgatgaagcc tgtgccacct gcaagtgccc gccctgcccc tgccccaacc cccaccgaag
                                                                       1620
agecetgage teaggetgag eccagecace teccaaggae titecagtga ggaaatggea
acacgtggag gtgaagtccc tgttctcagc tccgtcatct gcggggcttc tgggtggctc
                                                                       1680
ctgccactga cctcaccggc atgctggcct gtggcaggcc taggacctca ggcggggagg
                                                                       1740
                                                                       1800
aggagetgee geaaggeeet gteecageag aagagggagg etteetgaet gacacaggee
                                                                       1860
agecceatet tggteetgte accetggee caactattaa agtgeeattt ectgteaaaa
                                                                      1920
aaaaaaaaa aaaatcgggg ggggcccgga anccaatttc ccccaaaaag gggggttata
aaaattcccn ggcngtgttt ttaaaaattc g
                                                                      1951
```

```
<210> 28
<211> 3989
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
<223> n equals a,t,g, or c
<400> 28
ggcacaggcc gcagggnacc tatgggcgca tataggttgt aatgaaactg tagtctcagt
                                                                     120
tggaagccta gacatgaaat gggtcagtga gcaaggctct attcctagtc tccagccatg
                                                                     180
cctgtggaac ctgarcccrc tctcagcaca ttggacccag gcagatgyaa aaaattcaca
gaactatgat ttggactcaa gggtttgtag atttcctcct tcattctaat ttcagtgtct
                                                                     240
aaaattottg catcortgaa cgagotgggo atttgatgag acagggoyga atactgcagt
                                                                     300
tttcctccta gaaatcatct ggggcatttt ctttgaactg atgggaacaa taaggcataa
                                                                     360
ctgtttgcac aaacttggga taartgattt tgggataacg atctaccaga atggggatat
                                                                     420
ttcacccttg gttctgagat gcaaaccaaa gaatatcatg accagctttc aggcctcctg
                                                                     480
aagtatatct ctcacattgt cctgttctca tgctgaggag cctgagatcc ctgtgtgggg
                                                                     540
attagacagt ggactgttat gggtgtaggt gaattggctt attttgtctg tccctgtctg
                                                                     600
                                                                     660
aatgtattgc aggaaytaaa aaggaccaag aagaggaaga agaccaaggc ccaccatgcc
ccaggctcag cagggagctg ctggaggtag tagagcctga agtcttgcag gactcactgg
                                                                     720
                                                                     780
atagatgtta ttcaactcct tccagttgtc ttgaacagcc tgactcctgc cagccctatg
gaagttcctt ttatgcattg gaggaaaaac atgttggctt ttctcttgac gtgggagaaa
                                                                     840
                                                                     900
960
ggggaagaaa agaaggggaa gaagatcaaa acccaccatg ccccaggctc agcagggagc
                                                                    1020
tqctqqatqa qaaaqrqcct gaagtcttgc aggactcact ggatagatgt tattcaactc
                                                                    1080
cttcaqttqt qttqaactqt qtgactcatg ccagccctac agaagtgcct tttatgtatt
ggagcaacag catgttggct tggctgttga catggatgaa attgaaaagt accaagaagt
                                                                    1140
                                                                    1200
ggaagaagac caagacccat catgccccag gctcagcagg gagctgctgg atgagaaaga
gcctgaagtc ttgcaggact cactggatag atgttattcg actccttcag gttatcttga
                                                                    1260
actgcctgac ttaggccagc cctacagcag tgckgtttac tcattggagg amcaktacct
                                                                    1320
tggcttkkct cttgacgtgg asaaattgaa aagaagggga agggggaaraa aagaagggga
                                                                    1380
ccatgcccca ggctcagcag ggagctgctg gatgagaaag ggcctgaagt cttgcaggac
tcactggata gatgttattc aactccttca ggttgtcttg aactgactga ctcatgccag
ccctacagaa gtgcctttta yrtattggag caacagygtg ttggcttggc tgttgacatg
gatgaaattg aaaagtacca agaagtggaa gaagaccaag acccatcatg ccccaggctc
ageagggage tgetggatga gaaagageet gaagtettge aggaeteact ggatagatgt
tattogacto cttcaggtta tottgaactg cotgacttag gooagcoota cagcagtgot
                                                                    1800
                                                                    1860
gtttactcat tggaggaaca gtaccttggc ttggctcttg acgtggacag aattaaaaag
gaccaagaag aggaagaaga ccaaggccca ccatgcccca ggctcagcag ggagctgctg
                                                                    1920
gaggtagtag agcctgaagt cttgcaggac tcactggata gatgttattc aactccttcc
                                                                    1980
agttgtcttg aacagcctga ctcctgccag ccctatggaa gttcctttta tgcattggag
                                                                    2040
gaaaaacatg ttggcttttc tcttgacgtg ggagaaattg aaaagaaggg gaaggggaag
                                                                    2100
                                                                    2160
aaaagaaggg gaagaagatc aamgaagraa agaagaaggg gaagaaaaga aggggaagaa
                                                                    2220
gatcaaaacc caccatgccc caggctcaac ggcgtgctga tggaagtgga agagcstgaa
gtottacagg actoactgga tagatgttat togactoogt caatgtactt tgaactacct
                                                                    2280
                                                                    2340 .
gactcattcc agcactacag aagtgtgttt tactcatttg aggaacagca catcagcttc
                                                                    2400
gccctttacg tggacaatag gttttttact ttgacggtga caagtctcca cctggtgttc
                                                                    2460
cagatgggag tcatattccc acaataagca gcccttasta akccgagaga tgtcattcct
gcaggcagga cctataggca mgtgaagatt tgaatgaaag tacagttcca tttggaagcc
                                                                    2520
cagacatagg atgggtcagt gggcatggct ctattcctat tctcaaacca tgccagtggc
                                                                    2580
aacctgtgct cagtctgaag acaatggacc cacgttaggt gtgacacgtt cacataactg
                                                                    2640
tgcagcacat gccgggagtg atcagtcrga cattttaatt tgaaccacgt atctctgggt
                                                                    2700
```

```
2760
agctacaaaa ttcctcaqqq atttcatttt gcaggcatgt ctctgagctt ctatacctgc
tcaaggtcak tgtcatcttt gtgtttagct catccaaagg tgttaccctg gtttcaatga
                                                                     2820
                                                                     2880
acctaacctc attettigtg tetteagtgt tggettgttt tagetgatec atetgtaaca
caggagggat ccttggctga ggattgtatt tcagaaccac caactgctct tgacaattgt
                                                                     2940
taacccgcta grctcctttg gttagagaag ccacagtcct tcagcctcca attggtgtca
                                                                     3000
                                                                     3060
gtacttagga agaccacagc tagatggaca aacagcattg ggaggcctta gccctgctcc
                                                                     3120
tctcrattcc atcctgtaga gaacaggagt caggagccgc tggcaggaga cagcatgtca
                                                                     3180
cccaggactc tgccggtgca gaatatgaac aaygccatgt tcttgcagaa aacgcttagc
                                                                     3240
ctgagtttca taggaggtaa tcaccagaca actgcagaat gtrgarcact gagcaggaca
                                                                     3300
gctgacctgt ctccttcaca tagtccatrt caccacaaat cacacaacaa aaaggagarg
                                                                     3360
agatattttg ggttcaaaaa aagtaaaaag ataatgtagc tgcatttctt tagttatttt
garccccaaa tatttcctca tctttttgtt gttgtcatkg atggtggtga catggacttg
                                                                     3420
tttatagagg acaggtcagc tgtctggctc agtgatctac attctgaagt tgtctgaaaa
                                                                     3480
tgtcttcatg attaaattca gcctaaacgt tttgccggga acactgcaga gacaatgctg
                                                                     3540
                                                                     3600
tgagtttcca acctyagccc atctgcgggc agagaaggtc tagtttgtcc atcascatta
                                                                     3660
tcatgatatc aggactggtt acttggttaa ggaggggtct aggagatctg tcccttttag
agacacctta cttataatga agtatttggg agggtggttt tcaaaattag aaatgtcctg
                                                                     3720
                                                                     3780
tattccratg atcatcctgt aaacatttta tcatttatta atcatccctg cctgtgtcta
ttattatatt catatotota cgctggaaac tttctgcctc aatgtttact gtgcctttgt
                                                                     3840
ttttgctagt gtgtgttgtt gaaaaaaaaa acattctctg cctgagtttt aatttttgtc
                                                                     3900
3960
                                                                     3989
aaaaaaaaa aaaaagcgga cgcgtgggc
<210> 29
<211> 3735 -
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (110)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (3690)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (3716)
<223> n equals a,t,g, or c
<400> 29
                                                                      60
ctgctgttcg ctggctgggc tccgcagcag gcttggccag csgctgacgg gtcggcgggc
gggtttgtgt gaacaggcac gcagctgcag attttattct ggtagtgcan ccctctcaaa
ggttgaagga actgatgtaa cagggattga agaagtagta attccaaaaa agaaaacttg
                                                                      180
ggataaagta gccgttcttc aggcacttgc atccacagta aacagggata ccacagctgt.
                                                                      240
gccttatgtg tttcaagatg atccttacct tatgccagca tcatctttgg aatctcgttc
                                                                      300
atttttactg gcaaagaaat ccggggagaa tgtggccaag tttattatta attcataccc
                                                                      360
caaatatttt cagaaggaca tagctgaacc tcatataccg tgtttaatgc ctgagtactt
                                                                      420
                                                                      480
tgaacctcag atcaaagaca taagtgaagc cgccctgaag gaacgaattg agctcagaaa
                                                                      540
agtcaaagcc tctgtggaca tgtttgatca gcttttgcaa gcaggaacca ctgtgtctct
                                                                      600
tqaaacaaca aatagtctct tggatttwtt gtgttactat ggtgaccagg agccctcaac
                                                                      660
tgattaccat tttcaacaaa ctggacagtc agaagcattg gaagaggaaa atgatgagac
                                                                      720
atctaggagg aaagctggtc atcagtttgg agttacatgg cgagcaaaaa acaacgctga
```

gagaatettt tetetaatge cagagaaaaa tgaacattee tattgeacaa tgateegagg



<210> 30

<211> 1667

<212> DNA

<213> Homo sapiens

```
<221> SITE
<222> (1628)
<223> n equals a,t,g, or c
<400> 30
tagtaattca titaactcct citacatgag tagcgacaat gagtcagata tcgaagatga
                                                                         60
agacttaaag ttagagctgc gacgactacg agataaacat ctcaaagaga ttcaggacct
                                                                        120
gcagagtcgc cagaagcatg aaattgaatc tttgtatacc aaactgggca aggtgccccc
                                                                        180
tgctgttatt attcccccag ctgctcccct ttcagggaga agacgacgac ccactaaaag
                                                                        240
caaaggcagc aaatctagtc gaagcagttc cttggggaat aaaagccccc agctttcagg
                                                                        300
                                                                        360
taacctgtct ggtcagagtg cagcttcagt cttgcacccc cagcagaccc tccacctcc
tggcaacatc ccagagtccg ggcagaatca gctgttacag ccccttaagc catctccctc
                                                                        420
cagtgacaac ctctattcag ccttcaccag tgatggtgcc atttcagtac caagcctttc
                                                                        480
tgctccaggt caaggaacca gcagcacaaa cactgttggg gcaacagtga acagccaagc
                                                                        540
cgcccaagct cagcctcctg ccatgacgtc cagcaggaag ggcacattca cagatgactt
                                                                        600
gcacaagttg gtagacaatt gggcccgaga tgccatgaat ctctcaggca ggagaggaag
                                                                        660
caaagggcac atgaattatg agggccctgg aatggcaagg aagttctctg cacctgggca
                                                                        720
actgtgcatc tccatgacct cgaacctggg tggctctgcc cccatctctg cagcatcagc
                                                                        780
                                                                        840
tacctctcta ggtcacttca ccaagtctat gtgcccccca cagcagtatg gctttccagc
                                                                        900
taccccattt ggcgctcaat ggagtgggac gggtggccca gcaccacagc cacttggcca
gttccaacct gtgggaactg cctccttgca gaatttcaac atcagcaatt tgcagaaatc
                                                                        960
                                                                       1020
catcagcaac cccccaggct ccaacctgcg gaccacttag acctagagac attaactgaa
                                                                       1080
tagatctggg ggcaggagat ggaatgctga gggggtgggt gggggtggga agtagcctat
atactaacta ctagtgctgc atttaactgg ttatttcttg ccagagggga atgtttttaa
                                                                       1140
tactgcattg agccctcaga atggagagtc tcccccgctc cagttattgg aatgggagag
                                                                       1200
                                                                       1260
gaaggaaaga acagcttttt tgtcaagggg cagcttcaga ccatgctttc ctgtttatct
atactcagta atgaggatga gggctaggaa agtcttgttc ataaggaagc tggagaactc
                                                                       1320
aatgtaaaat caaacccatc tgtaatttcg agtgggtgga gctcttgctt ttggtacatg
                                                                       1380
ccctgaatcc ctcactccct caagaatccg aaccacagga caaaaaccac ctactgggct
                                                                       1440
ctctcctacc ctgccctcct ccctttttt tacccctctc ttttttattt tttctttgct
                                                                       1500
ctttagaacc cagtgaaaaa taccagggta ctggggtgca actctttctt atgataggtc
attagtgctt taagcaaaag atattagcag ctttgactgc agcattagca attaggraaa
                                                                       1620
                                                                       1667
aaaaaaanwa aaaactcgag ggggggcccg gttacccaat tcgccct
<210> 31
<211> 1408
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1385)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1395)
<223> n equals a,t,g, or c
<400> 31
attacacacc tgagcactgt gcctggcaag acctgtctta atagattaga gaaccactga
                                                                         60
tagatggtca gctttctgta gcagtgagaa ccctacáttt caaatgtgga tagcaccttt
                                                                        120
gcggggaaac atcacttggc acatctgcat tcttttttga cacagggtct cactctgttg
                                                                        180
                                                                        240
cccaggctag agtgcatggc acgatettag etcaetgcaa ecteeacete ecaagttcaa
                                                                        300
gcgattcttc tgcctcagcc tcctgagcag ctgggatcac agacatgcgc taccatgccc
agctaatttt ttgtattttt tgtktgtttg tttttgtttk taagtagaga cgggctttca
                                                                        360
ccacgttggs caggcaggtc tcgaactcct gamctcaggt gatccaccca catctgcgtt
                                                                        420
```

```
ccaatatett teteaacata atgatageeg taattaatat ttteeagtae atttttatge
                                                                      480
ctttacacac gagagtggta gacagacaca aacccagatc tgtctgactc caaagcccgt
                                                                      540
ttgtcatcat tccttttacg gtatcctata gtggtatcct ttacagaaag acagctttta
                                                                      600
cccaacaaag acttaacttc ccaggatgcc agaaggacaa agcgggattg cttttaagra
graagttatc aagamettat tttataaatg agattagata gggaaaggca atttatettt
                                                                      720
attaaaaact gaaaaggcca gcatagggaa ggaggtcctt cggtggtctt tttcagggaa
atacttcagt tgcttttatt agaaacagat agtacctaag gttttgaggt aggwacagct
                                                                      840
taaggcatgc taatgktcat gggtccttcc atagtcattt tkgtattttg gttwacattt
                                                                     900
gagcaatagg cagcccttca ctgctgctgg aytcattcct gccaytatta caggtgacag
                                                                     960
aggagacagg aggtatgtct tttctatttt tawacatgct ttatatttaa cacaagctct
                                                                     1020
tgggtatctt agataaacag aagttgccta gcactccttt tagtgcattg aaccctttaa
                                                                     1080
catttaaqca aaataataaa caqtcttttq aggttcctta acaatgaaac gtgttcqaqt
                                                                     1140
ggcagcagcg gaatccatgc ytcttctcct ggagtgtgca akagtccgtg gtcctgagta
                                                                     1200
tctcacacag atgtggcatt ttatgtgtga tgctctaatt aaggccattg gtacagaacc
                                                                     1260
agattcagac gtcctctcag aaataatgca ttcttttgca aaggtgaata tttttctctt
                                                                   1320
1380
                                                                     1408
acttngaggg ggggnccggt acccaatt
<210> 32
<211> 3186
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (24)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (666)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (682)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (3181)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (3184)
<223> n equals a,t,g, or c
<400> 32
                                                                      60
gggaggtcga gaagccaata agtngttttt cattgaatcc tgcattgcac tctttgtttc
                                                                     120
cttcatcatc aatgtctttg ttgtctcagt stttgctgaa gyrttttttg ggraaaccaa
cgagcaggtg gttgaagtct gtacaaatac cagcagtcct catgctggcc tctttcctaa
                                                                     180
agataactcg acactggctg tggacatcta caaagggggt gttgtgctgg gatgttactt
                                                                     240
tgggcctgct gcactctaca tttgggcagt ggggatcctg gctgcaggac agagctccac
                                                                     300
                                                                     360
catgacagga acctattctg gccagtttgt catggaggga ttcctgaacc taaagtggtc
acgetttgcc cgagtggttc tgactcgctc tattgccatc atccccactc tgcttgttgc
                                                                     420
```

tgtcttccaa gatgtagagc atctaacagg gatgaatgac tttytgaatg ttctacagag

```
540
cttacagett ecettigete teatacecat ceteacattt aegagetige ggecagtaat
                                                                      500
gagtgacttt .gccaatggac taggctggcg gattgcagga ggaatctggt cctatcatct
                                                                      660
qttccatcat atgtactttg tagtggwtta tgtccgggac Ytaaggcatg tgscattata
tgtggnggct gctgtggtca ancgtggctt atctgggctt tgtgttctac ttggrttggc
                                                                      720
                                                                      780
aatgtttgat tgcactgggc atgtccttcc tggactgtgg gcatacggta agcatctcta
aaggeetget gacagaagaa gecaeeegtg getaegttaa ataacaetgg attagtetgt
                                                                      840
                                                                      900
cttctgcagg tagccatcag agccagtgtg tttctatggt ttactgtgtg aacatagcca
                                                                      960
aaagtatgtg ccgttgcaca gactgtgttt atgactcaac cgttggttgg aaaagacttt
gtttcatgtg tatttgaaag atggaattat tttttccttc ctgacctaac cttagaactg
                                                                     1020
                                                                     1080
gattagggtg ggatctttga aaagctgaca tttgctgcta tcattccaac actaaattct
taaqtaqttq cccaaqqqcc aqctcaqttt atccttcgga gagacaagga tatgcatgat
                                                                     1140
                                                                     1200
tcttaaccag gctatatgtt aaaaaaaaat tggaaaatgc aatacatttt ttattataca
aactacagaa tgagtatgca agttttattt atcaaaatgt aatggatttt taaaggctga
                                                                     1260
gaaattttcc ttatacctac cttttcagtt attttaatta taccaaatta tcaactagaa
                                                                     1320
tagetteate catatgaaat ataaaatgaa gagacaceta getetateag gettaggatt
                                                                     1380
ctttgaactt atttccactt taatttctca gtggaagtta agaggggtga gaaaacaaag
                                                                     1440
aaggggaaaa actgacaact aacaaaacca gcaccacatc gctaggtggt gcttactaat
                                                                     1500
                                                                     1560
taccttctca ggattttcct cagattgaaa agcttatgag gatttcttgg gagtcttaat
                                                                     1620
aacctgcctg ttagtacaga gctttcctga tgatatttac tcttgagcac atgtggttgt
                                                                     1680
aaaaccttaa ctttcttct ccaggagggt ggtgatagaa acagatggta gtatttatga
                                                                     1740
actgatgttc tcgtgaaatg ttgagggtgg ggagaaaaga ctttaaggga ggagagccat
                                                                     1800
ctattttgtt cctaaagcca cctctcagca gaatcgtcat gtttttctga tgcaccgctc
tgcttcatgc ccaagatgac ttgcgaggca atctcaggag ctgtggactt aaccattgca
                                                                     1860
aagcacactg tettetecag egttetetge aagteagtag gtgttagtat ggttgcaaag
                                                                     1920
                                                                     1980
ttcactgtct cagcaaagtt gaactgggct acctctctac agctgtttcc tcagagggaa
aaatcttgag accagatggt ggagctctgg agtcagagga aatgggtgtc ttcagcacaa
                                                                     2040
agctgctgct tttacttcag ccacttctga catttttaca taccgagcct gagattgtgt
                                                                     2100
gattatctca aatcaaatca ctttgatgga gataaataat caaaactgtt ttatagtcat
                                                                     2160
tgatttggtg agaacagtaa tggaaaatgg tgttgaagga cttctcattt ttggagcttt
                                                                     2220
cettecagag teetggetga ttggtgtteg etgtteatet gageeceeaa aageattatt
actgatactt gcacacagtc aaaagcgcag actggatgga tggtctttta taaggcattt
                                                                     2400
aagggtacac tactgtgttt cactgaccat acatttttct tagcccctca agtaatatag
                                                                     2460
cacagagtta tgaatgacaa ttcccctaac cattcctctt catatctgcc tcttcccctt
                                                                     2520
accategtaa ttetecaaae tggteataaa ggeaetetgt gaagatattg gggaetgaea
                                                                     2580
tottaagoto toacotggot goagtaggaa aggocaaact gacgacaaaa aaaaaattot
                                                                     2640
ttataaagat gatatggtaa catgtatctt tgccctgggt ctgggtgggt ccagtcagtc
                                                                     2700
tcagatttac aagcatttag gagcctaggt aaaagctgct agtattcttt taaaagttac
atttatgact tgcaatgata gaaaactcct tccaattaaa tggcatttta taatattatg
                                                                    . 2760
tgtgtactic acagtgttaa aaataccctc atacgttatt gcatttgatc ttcacagaaa
                                                                     2820
                                                                     2880
gtgcatttta accagtactc tgggtgcaat aaataatatg tagaaattta agtcctccaa
ttccagcata tccagtgagt tttgacagtg tgtttatgtg gaatgtttaa ggatatacaa
                                                                     2940
ttgtacttta tataaattgg ttcttgttct tcttaaatgt gacatgaaat aattgtgctg
                                                                     3000
ctacattata ctggaaatta acaggggaaa agggaagagc tcttggctcc cttgaggttc
                                                                     3060
                                                                     3120
tgctagtggt gttaggagtg gttacaactg agcttttagt aaccatttaa ccgtatgtaa
3180
                                                                     3186
nctngg
```

```
<210> 33
<211> 971
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (957)
```

<223> n equals a,t,g, or c

```
<220>
<221> SITE
<222> (964)
<223> n equals a,t,g, or c
<400> 33
cgcgtcggaa ctcggccgcg ggacatccac ggggcgcgag tgacacgcgg gagggagagc
                                                                       60
agtgttctgc tggagccgat gccaaaaacc atgcatttct tattcagatt cattgttttc
                                                                      120
ttttatctgt ggggcctttt tactgctcag agacaaaaga aagaggagag caccgaagaa
                                                                      180
gtgaaaatag aagttttgca tcgtccagaa aactgctcta agacaagcaa gaagggagac
                                                                      240
ctactaaatg cccattatga cggctacctg gctaaagacg gctcgaaatt ctactgcagc
                                                                      300
cggacacaaa atgaaggcca ccccaaatgg tttgttcttg gtgttgggca agtcataaaa
                                                                      360
ggcctagaca ttgctatgac agatatgtgc cctggagaaa agcgaaaagt agttataccc
                                                                      420
                                                                      480
ccttcatttg catacggaaa ggaaggctat gcagaaggca agattccacc ggatgctaca
                                                                      540
ttgatttttg agattgaact ttatgctgtg accaaaggac cacggagcat tgagacattt
aaacaaatag acatggacaa tgacaggcag ctctctaaaag ccgagataaa cctctacttg
                                                                      600
caaagggaat ttgaaaaaga tgagaagcca cgtgacaagt catatcagga tgcagtttta
                                                                      660
                                                                      720
gaagatattt ttaagaagaa tgaccatgat ggtgatggct tcatttctcc caaggaatac
aatgtatacc aacacgatga actatagcat atttgtattt ctactttttt tttttagcta
                                                                      780
tttactgtac tttatgtata aaacaaagtc acttttctcc aagttgtatt tgctattttt
                                                                      840
cccctatgag aagatatttt gatctcccca atacattgat tttggtataa taaatgtgag
                                                                      900
gctgttttgc aaacttaaaa aaaaawwaaa aaaactsgag gggggcccgt acccaantcg
                                                                      960
                                                                      971
ccgnatatga t
<210> 34
<211> 1792
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1767)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1768)
<223> n equals a,t,g, or c
<400> 34
gaaccccctt tctcctggta aagggtaagg ggggggataa tgtttaccac aggtacgaaa
                                                                       60
tagtcacttt aacattgaga cctctgcctc attgaattca ggttttttaa gtacttgaaa
                                                                      120
ctcttcagat tctccttatt ttagtttctt tttacattta tgaagtagaa agcattgttt
                                                                      180
tgtaaactgt tttgaaaata aatagcctag tctcttatcc tctttagcgt ggattaaagg
                                                                      240
tgaagttctg caaatgggag agtgttcaca gtagatagct cagattgatt gaacacattt
                                                                      300
gaggaagaga eteetgeatg agataceage attittacaa atactitita tgtacatiet
                                                                      360
ttattttgtc attttgtcaa ccctctcccc aagcacatct tctttccttt tactatgtct
                                                                      420
                                                                      480
atgtagggaa aaacaaaaca aaaaattgca cttacgttac actcccaaaa tgtgggtaat
540
                                                                      600
tgacaagttt gggtgcttgt ggcacgtatg tatgaagcgg gagggggatg asaattgcct
                                                                      660
gtccttcagt argctgtaaa agtaatttac atgtaagtaa aaagggaaaa tagaatagat
                                                                      720
gccaaagtca tttattcagt ccttagtttt cttatgtggc attactgcat ctgctagtta
                                                                      780
gtgagaaagc acceteaget tttactgete ecetecetge etgeeaacae acttgatgtg
tgcaaacagc cctcaagtat ctgtcagatg acctatataa ggtattgaat aaggtattct
                                                                      840
tgtcagttta gaaatggact ggataaaact tacttggttg tcattatttt atctcatttg
                                                                      900
tcctgttaca tgccctatgt taagataatt atattgccac taataatcaa gatgctaaat
                                                                      960
gagtattaca actggctaat atcatttttt atatacaagg gtatgtgtat atttggaatt
                                                                     1020
```

```
grtatgagaa actcatttgt acccatttga gtgatattgc acaacaaaca cagataycta
                                                                        1080
cagactccgt tttcattttc tcgtgttctt tatgataatg atctttgtag attggttatt
                                                                        1140
 tctgtacttt atctgtaata aactttgtag atcctgtgaa ccattacttt gcctaaatca
cttgagactt gagtctttaa taacaaagca tcaatattca ctaaagtcaa tctcttttga
                                                                        1260
 gtttctgtga cttggctaga agctcttgac actaagggat tagtgttaat tttccctggg
                                                                        1320
ggtgttccac tagggcatta ctgtataatg acttgatgtt gccacataga cttcaagata
                                                                        1380
 tataatattt tgaggatttt gttgattggc ctatgtttta ttgcatagtg tgaaacgtgt
                                                                        1440
aaagettggt taacetgtat atagataget tattgttgac tagttatagt gtatttaggg
                                                                        1500
 ttgcctgtaa tatttaagct tctttactga tgtgtgtgct ggtaggaaca tataattttt
                                                                        1560
gtacattata tttactgaga tgttgccttt tttattttac aaatactttg gaattccaat
                                                                        1620
gtgttttttg cttccgtgag gattaatttg gaaaggtttt taatgacatt ccactgattt
                                                                        1680
cagattttgc ttgagattga cttcaataaa ttgtcctgta tgttccaaaa aaaaattaaa
                                                                        1740
aaactcgagg ggggcccggt acccaanncg ccggatatga tcgtaaacaa tc
                                                                        1792
<210> 35
<211> 896
 <212> DNA
 <213> Homo sapiens
<220>
<221> SITE
<222> (6)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (8)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (870)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (877)
<223> n equals a,t,g, or c
agttgnanac aacaggacct gagtccttgg gcagcaccag taggttgccc cytgcytcyt
gccagcytca cytgccacyt tytgccccty tcgggatgcc ttcgcagaca gagytyttcg
                                                                        120
ctgcctgtgg tggccaytct ttgcttttgg ttytcttgcc ccttggcctc cctttttgtc
                                                                        180
cccgggcagc cttgtgtgac ctgccctttt ccctcccttc ctttccagga caagcacgcc
                                                                        240
                                                                        300
gaggaggtgc ggaaaaacaa ggagctgaag gaagaggcct ccaggtaaag cctagaggcc
aaagaacttt ccaggtcagc cggacagctc cagcagctcc acgttccagg cagcctcgmc
                                                                        360
cgccggctgc gctcccagca ctggggtttg gggggagggg ggtggccaag gggcgtttcc
                                                                        420
                                                                        480
totgottttg gtgtttgtac atgttaagaa ttgaccagtg aagccatcct atttgtttcc
ggggaacaat gacggggtgg garaggggag aggagagagt ttgggaaagg gagatggaga
                                                                        540
agaactcaag gacattgcaa ccctgcccgg cgcagatctg attttcacat ctctacctgg
                                                                        600
                                                                        660
acattgagcc tcccaggcac catgttgagg agagatgaaa accagggcgg tagaacttca
                                                                        720
gggtgaagga cagagteetg ggtggggcag eggetgéagg gegeaceaga gaacecagee
agagggggtg tgagtaccag tggtgttgct tccaccctgc agcaggtggg atgaggtctg
                                                                        780
tgtgtgtgtg tgaaccatca ttttttgatc atcatgacca atgaaacatt gaaaaaaaa
                                                                        840
                                                                        896
```

aaaaaaactg gagggggcc cgtacccaan tcgccgnata gtgatcgtaa acaatc

```
<210> 36
<211> 912
<212> DNA
<213> Homo sapiens
<400> 36
togacccacg cgtccggtca gccagtcgca tccagccatg acagccttct gctccctgct
cctgcaagcg cagagcctcc tacccaggac catggcagcc ccccaggaca gcctcagacc
                                                                        120
aggggaggaa gacgaaggga tgcagctgct acagacaaag gactccatgg ccaagggagc
                                                                        180
taggeceggg gecakeegeg geagggeteg etggggtetg geetaeaege tgetgeaeaa
                                                                        240
cccaaccctg caggtcttcc gcaagacggc cctgttgggt gccaatggtg cccagccctg
                                                                        300
arggcaggga akgtcaaccc acctgcccat ctgtgctgag gcatgttcct gcctaccatc
                                                                        360
ctcctcctc cccggctctc ctcccagcat cacaccagcc atgcagccag caggtcctcc
ggatcacygt ggttkggtgg aggtctgtct gcactgggag cctcargarg gctctgctcc
                                                                        480
acceacttgg ctatgggaga gccagcaggg gttctggaga aaaaaactgg tgggttaggg
                                                                        600
ccttggtcca ggagccagtt gagccagggc agccacatcc aggcgtctcc ctaccctggc
                                                                        660
totgccatca gccttgaagg gcctcgatga agccttctct ggaaccactc cagcccagct
                                                                        720
ccacctcagc cttggccttc acgctgtgga agcagccaag gcacttcctc accccytcag
                                                                        780
cgccacggac ctytytgggg agtggccgga aagctcccsg gcctytggcc tgcagggcag
cccaagtcat gactcagacc aggtcccaca ctgagctgcc cacactcgag agccagatat
                                                                        840
                                                                        900
ttttgtagtt tttatkeett tggetattat gaaagaggtt agtgtgttee etgeaataaa
                                                                        912
cttgttcctg ag
<210> 37
<211> 1382
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (787)
<223> n equals a,t,g, or c
<400> 37
aattcggcac gagcggaggc gagggaaact ragggcgaaa gttgtgtgtc gtgttggcag
                                                                         60
gagggcctag aagggaaaga ctgtctagtg ggacaatgtc atattataaa tttggaatgc
                                                                         120
tgaatagaaa attatagatt ttgatattga aggaaatgaa gcgaagcyta aatgaaaatt
                                                                         180
                                                                         240
cagctcgaag tacagcaggc tgtttgcctg ttccgttgtt caatcagaaa aagaggaaca
                                                                         300
gacagecatt aacttetaat ecaettaaag atgatteagg tateagtace eettetgaca
attatgatti teeteeteta eetacagatt gggeetggga agetgtgaat eeagagttkg
                                                                         360
                                                                         420
ctcctgtaat gaaaacagtg gacaccgggc aaataccaca ttcagtttct cgtcctctga
                                                                         480
gaagtcaaga ttctgtcttt aactctattc aatcaaatac tggaagaagc cagggtggtt
                                                                         540
ggagctacag agatggtaac aaaaatacca gcttgaaaac ttggrataaa aatgatttta
agecteaatg taaacgaaca aacttagtgg caaatgatgg aaaaaattet tgtecaatga
                                                                         600.
                                                                         660
gttcgggagc tcaacaacaa aaacaattaa gaacacctga acctcctaac ttatctcgca
                                                                         720
acaaagaaac cgagctactc agacaaacac attcatcaaa aatatctggc tgcacaatga
gagggctaga caaaaacagt gcactacaga cacttaagcc caattttcaa caaaatcaat
                                                                         780
                                                                         840
ataaganaca aatgttggat gatattccag aagacaacac cctgaaggaa acctcattgt
                                                                         900
atcagttaca gtttaaggaa aaagctagtt ctttaagaat tatttctgca gttattgaaa
gcatgaagta ttggcgtgaa catgcacaga aaactgtact tctttttgaa gtattagctg
                                                                        960
ttcttgattc agctgttaca cctggcccat attattcgaa gacttttctt atgagggatg
                                                                       1020
                                                                       1080
ggaaaaatac tctgccttgt gtcttttatg aaatcgatcg tgaacttccg agactgatta
gaggeegagt teatagatgt gttggeaact atgaceagaa aaagaacatt tteeaatgtg ,
                                                                       1140
                                                                       1200
tttctgtcag accggcgtct gtttctgagc aaaaaacttt ccaggcattt gtcaaaattg
cagatgttga gatgcagtat tatattaatg tgatgaatga aacttaagta gtgataaaag
                                                                       1260
                                                                       1320
gaagtttage ataaattata geagttttet gttattgett aatttaceat etceatagtt
ttatagctac tattgtattt cacttgttga attaaagtat ttgaattctt ttaaaaaaaa
                                                                       1380
```

```
aa
                                                                        1382
<210> 38
<211> 872
<212> DNA
<213> Homo sapiens
<400> 38
gggctactic aaagccctgg gccttattic ticaggtaaa aaaatataaa gicagatcic
                                                                         60
atcocggoig gocatgoigt tagaccotti catcottoto tiotgootot totcaacago
                                                                         120
tgcccagtcc tgtttggaat tcatatacat acagttctaa tactgatgta tttaccctca
                                                                         180
                                                                         240
taagccactc aacccagaat cttatttgaa ttataatcca gaaacatcag gtgacgtgtg
                                                                         300
agactactgt atgagaaaga gacagtttaa gggtcagtcc aatggaaaaa agagttctca
gagetttett tagettatte teateaaaga getttetetg cagaaggaae etaetggtte
                                                                         360
ctecttteca gtectagaaa teetgaeeta gagtggetta ateetgetag cacetetete
                                                                         420
tegeactetg gtgecaaatg actecaggaa etgggecatg atgtggtggg aatgacetta
                                                                         480
ccctgagcat gtcactcatg cattgaacaa cagctaagag cagagcttag agcttagagc
                                                                        540
tgggccctgt aaggtgagag gaatcacatc ctgcagaagt ctgtcctgag aagcaggtac
                                                                        600
tectgtcaca geagagaeae agtggataee tgagtaacaa taatacaaga caggaegtgg
                                                                         660
gmacagcaaa agatttgggt gtcagaagar gccgagaaca cttycaggca ggaacattca
                                                                        720
rarttgttct tggaggaart aggcmcsaag gctgggcagg atttcmcggg gcagagatgg
                                                                        780
agcaagcaat tgaaatgaaa gccatggcat gggaaaagga gcactggcca cagggagtgc
                                                                        840
aacgttgtga tgcaaggcca ctgtggagcc at
                                                                        872
<210> 39
<211> 812
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (794)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (806)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (810)
<223> n equals a,t,g, or c
<400> 39
                                                                         60
ggcagaggct caccccagca gagattgagg gggaaccgtg atgaaatttt taagtattct
gcttgatgat aataatttty ctcttatgtt aatgttggct ccgtttgggt gtttagcttt
                                                                        120
tgaaaggagt atgaaaatgc ggaatggggc tttggggctt gaggaggtgt gatctctagt
                                                                        180
gtttaaaaaa tttaattgca caaatagaaa taattcaccc acattattga accccactaa
                                                                        240
agcatatect tittgiceat attectitee tgetgeeete gigigiacea tiattactea
                                                                        300
gttgtgattt gagctcgttc cacttaaagt cattcataga tacttttgcg tcgtgttkga
                                                                        360
                                                                        420
atatttattg aatttctatt ctgtgtttta cttaattact ttattatgga acctttacac
aggtctggtg tacttgttct ttgaaaagtc ttatgttgac caccatcact gagcatatag
                                                                        480
                                                                        540
ctttttcctt atttccttgg gataattacc cgaagtggaa ataccgaatc aaacttctgt
                                                                        600
tttctttctt tggcactatt atataaattg ttttccaaac aaggcatgtt tacaatagac
atttttcaaa atctgggtat ttgtcctatt ttgctctctg tatgcagaat tcagcggggt
                                                                        660
```

```
gccaagtcgt tttctgtgtg ggttgagaga caggctgtgc agcccactgt tgcataggac
                                                                      720
                                                                      780
taactactac aaatcatgct gagaccgagc tatttttgct gcttagargc tttgcagcct
                                                                      812
tgagtaagtt tcgncatctg gaaacnttgn aa
<210> 40
<211> 1515
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (69)
<223> n equals a,t,g, or c
<400> 40
aattcggcac gagggaaatt caagcacttt tcctaaaaga agggggaatg gatgctgaaa
                                                                       60
caacacgint cccacaaagg gagcagacac tgggcitgig aagcigcccc ataccitccc
                                                                      120
cacagaactg gggtccggcc tccctgacat gcagatttcc acccagaaga cagagaagga
                                                                      180
gccagtggtc atggaatggg ctggggtcaa agactgggtg cctgggagct gaggcagcca
                                                                      300
ccgtttcagc ctggccagcc ctctggaccc cgaggttgga ccctactgtg acacacctac
                                                                      360
catgoggaca ctcttcaacc tcctctggct tgccctggcc tgcagccctg ttcacactac
                                                                      420
cctgtcaaag tcagatgcca aaaaagccgc ctcaaagacg ctgctggaga agagtcagtt
ttcagataag ccggtgcaag accggggttt ggtggtgacg gacctcaaag ctgagagtgt
                                                                      480
                                                                      540
ggttcttgag catcgcagct actgctcggc aaaggcccgg gacagacact ttgctgggga
                                                                      600
tgtactgggc tatgtcactc catggaacag ccatggctac gatgtcacca aggtctttgg
gagcaagttc acacagatct caccegtctg gctgcagctg aagagacgtg gccgtgagat
                                                                      660
gtttgaggtc acgggcctcc acgacgtgga ccaagggtgg atgcgagctg tcaggaagca
                                                                      720
tgccaagggc ctgcacatag tgcctcggct cctgtttgag gactggactt acgatgattt
                                                                      780
ccggaacgtc ttagacagtg aggatgagat agaggagctg agcaagaccg tggtccaggt
                                                                      840
                                                                      900
ggcaaagaac cagcatttcg atggcttcgt ggtggaggtc tggaaccagc tgctaagcca
                                                                      960
gaagegegtg acegaceage tgggeatgtt caegeacaag gagtttgage agetggeece
                                                                     1020
cgtgctggat ggtttcagcc tcatgaccta cgactactct acagcgcatc agcctggccc
                                                                     1080
taatgcaccc ctgtcctggg ttcgagcctg cgtccaggtc ctggacccga agtccaagtg
                                                                     1140
gcgaagcaaa atcctcctgg ggctcaactt ctatggtatg gactacgcga cctccaagga
                                                                     1200
tgcccgtgag cctgttgtcg gggccaggta catccagaca ctgaaggacc acaggccccg
gatggtgtgg gacagccagg yctcagagca cttcttcgag tacaagaaga gccgcagtgg
                                                                     1260
gaggcacgtc gtcttctacc caaccctgaa gtccctgcag gtgcggctgg agctggcccg
                                                                     1320
                                                                     1380
ggagctgggc gttggggtct ctatctggga gctgggccag ggcctggact acttctacga
cctgctctag gtgggcattg cggcctccgc ggtggacgtg ttcttttcta agccatggag
                                                                     1440
1500
                                                                     1515
aaaaaaaaa aaaaa
<210> 41
<211> 704
<212> DNA
<213> Homo sapiens
<400> 41
                                                                       60
aagatggtgg cgcccagagc ttcgctctat gctgctcccc tgagagaggc gtttccatca
accagttitg caaggagttc aatgagagga caaaggacat caaggaaggc attoctctgc
                                                                      120
                                                                      180
ctaccaagat tttagtgaag cctgacagga catttgaaat taagattgga cagcccactg
                                                                      240
tttcctactt cctgaaggca gcagctggga ttgaaaaggg ggcccggcaa acagggaaag
                                                                      300
aggtggcagg cctggtgacc ttgaagcatg tgtatgagat tgcccgcatc aaagctcagg
                                                                      360
atgaggcatt tgccctgcag gatgtacccc tgtcgtctgt tgtccgctcc atcatcgggt
                                                                      420
ctgcccgttc tctgggcatt cgcgtggtga aggacctcag ttcagaagag cttgcagctt
```

tccagaagga acgagccatc ttcctggctg ctcagaagga ggcagatttg gctgcccaag

```
aagaagctgc caagaagtga cccttgcccc accaactccc agatttcaaa ggaggtagtt
                                                                     600
gcaaaagctg tgcccaaggg gaggaaggag gtcacaccaa tatgatgatg gttttcatga
ctttgaatga tatatttttg tacatctagc tgtatcgagg catcaggcct gaataaacat
                                                                     660
cctttcttaa aaaaaaaaaa aaaaaaaaaa aaaa
                                                                     704
<210> 42
<211> 1094
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (196)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (226)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (302)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (596)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (952)
<223> n equals a,t,g, or c
<400> 42
ggcagettte ttacaaacce atecttetga aatgttgett caaatteate etetgeteee.
                                                                      60
cagtoccact attocacaca tactgttact gtttctttat cotactttct caattttgga
acatagttgc agttactgca ttgaatacct gtgggtttgc ctgttgttct gtctgtctct
gtggttcttg taatantgga tcccagagat aaaatggaca gttgtnatgc acagttaatt
cagaaactag accttacttg ctgtgtgaaa taccaactaa attctcagtg aactcagctg
anctttatct ccttttgttt ccccaattta taatttcagt tcaggcccag aaagatggaa
tcccagctaa gaaatacaag ttacaccctg tactagcagc ccatgtgtgc atgttcttta
480
tttgaggaaa aaaacccata ataccacacc tcatttttt caagtaatag ggtcataagt
                                                                     540
                                                                     600
ctcatyctyc atataatatg ttgagtatgc agtatattat gtgttaggct ctgganaggc
agaggttaga tcatgtwaca gatcatatck gattaggcag ataaacagta ttttaacctt
                                                                     660
ttccttatta tatgtaactt gctttcaggt tttttaatgt tactattatg tctttaatat .
                                                                     720
attatcttta tttgtacttt tgtatacaga gtgattttcc ttttttaaaa aaaattgtgt
                                                                     780
ctttaggatg gattccaaag atgtggaatc agtaggttta aggaatatgg atattttggc
                                                                     840
                                                                     900
tggcaaggtg gctcacacct gtaatcccag cactttggga ggctgaggtg ggtggatcac
                                                                     960
ctgaagtcag gagttcgaga ccagcctgac caacatggcg aaaccctgtt tntactaaag
                                                                    1020
acacacwwaa aattrgccag tggtggtggc atgtgcttgt agtcccactt agctactcga
gaggctgagg caggagaatc gcttgaaccc gggaggcaga ggttgcagtg aggcaagatg
                                                                    1080
gcacctctac actc
                                                                    1094
```

```
<210> 43
<211> 1821
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1801)
<223> n equals a,t,g, or c
<400> 43
tggcttaggc catcaccctt cccttggctg gaactactgg acagaccctt ttgagatgtg
                                                                       60
cctgtggtgc tgtggagatg tgtgtagtgg tcttagctct ttgttgagct tgtgtgtgtg
                                                                        120
                                                                        180
ttgtgtagtc ttagctgtat gctgaaattg ggcgtgtgtt ggagggcttc ttagctcttt
ggtgagattg tatttctatg tgtttgtatc asctgaatgt tgctggaaat aaaaccttgg
                                                                        240
tttgtmaagg ctcytttttg tgggaagtaa gtaggggaaa aggtctttga gggttcctag
                                                                        300
gctcctttgt acaacaggaa aatgcctcaa agccttgctt cccagcaacc tggggctggt
                                                                        360
                                                                        420
teccagtgee tggteetgee cetteetggt tettatetea aggeagaget tetgaattte
                                                                        480
aggeetteat tecagageee tettgtggee aggeetteet ttgetggagg aaggtacaca
                                                                        540
gggtgaagct gatgctgtac ttgggggatc tccttggcct gttccaccaa gtgagagaag
                                                                        600
gtacttactc ttgtacctcc tgttcagcca ggtgcattaa cagacctccc tacagctgta
ggaactactg tcccagagct gaggcaaggg gatttctcag gtcatttgga gaacaagtgc
                                                                       660
tttagtagta gtttaaagta gtaactgcta ctgtatttag tggggtggaa ttcagaagaa
                                                                        720
atttgaagac cagatcatgg gtggtctgca tgtgaatgaa caggaatgag ccggacagcc
                                                                        780
tggctgtcat tgctttcttc ctccccattt ggacccttct ctgcccttac atttttgttt
                                                                        840
                                                                        900
ctccatctac caccatccac cagtctattt attaacttag caagaggaca agtaaagggc
                                                                        960
cctcttggct tgattttgct tctttctttc tgtggaggat atactaagtg cgactttgcc
                                                                       1020
ctatcctatt tggaaatccc taacagaatt gagttttcta ttaaggatcc aaaaagaaaa
acaaaatgct aatgaagcca tcagtcaagg gtcacatgcc aataaacaat aaattttcca
                                                                       1080
gaagaaatga aatccaacta gacaaataaa gtagagctta tgaaatggtt cagtaaggat
                                                                       1140
                                                                       1200
gagtttgttg ttttttgttt tgttttgttt tgktttttta aagacggagt ctcgctctgt
                                                                       1260
cactcagget ggagtgcagt ggtatgatet tggetcaetg taaceteege etecegggtt
                                                                       1320
caagccattc tectgeetea gteteetgag tagetgggat taeaggtgeg tgeeaccatg
                                                                       1380
cctggctaat ttttgtgttt ttagtagaga cagggtttca ccatgttggt cgggctggtc
                                                                       1440
tcaaactcct gacctcttga tccgcctgcc ttggcctccc aaagtgatgg gattacagat
                                                                       1500
gtgagccacc cgtgccctag ccaaggatga gatttttaaa gtatgtttca gttctgtgtc
atggttggaa gacagagtag gaaggatatg gaaaaggtca tggggaagca gaggtgattc
                                                                       1560
                                                                       1620
atggctctgt gaatttgagg tgaatggttc cttattgtct aggccacttg tgaagaatat
gagtcagtta ttgccagcct tggaatttac ttctctagct tacaatggac cttttgaact
                                                                       1680
                                                                       1740
ggaaaacacc ttgtctgcat tcactttaaa atgtcaaaac taatttttat aataaatgtt
                                                                       1800
tattttcaca ttgaaaaaaa aaaaaaattt aaaaacycgg ggggggcccs gwaccccatt
                                                                       1821
ngcccctaag ggggggggtt t
<210> 44
<211> 1024
<212> DNA
<213> Homo sapiens
<400> 44
                                                                         60
ggggcacagt tgaagaagcg accgagggac tgggagtcgt tagtgaggat gacgcggcat
ggcaagaact gcaccgcagg gccgtctaca cctaccacga gaagaagaag gacacagcgg
                                                                        120
                                                                        180
cctcgggcta tgggacccag aacattcgac tgagccggga tgccgtgaag gacttcgact
                                                                        240
gctgttgtct ctccctgcag ccttgccacg atcctgttgt caccccagat ggctacctgt
                                                                        300
atgagcgtga ggccatcctg gagtacattc tgcaccagaa gaaggagatt gcccggcaga
                                                                         360
tgaaggccta cgagaagcag cggggcaccc ggcgcgagga gcagaaggag cttcagcggg
                                                                         420
cggcctcgca ggaccatgtg cggggcttcc tggagaagga gtcggctatc gtgagccggc
                                                                        480
ccctcaaccc tttcacagcc aaggccctct cgggcaccag cccagatgat gtccaacctg
```

```
ggcccagtgt gggtcctcca agtaaggaca aggacaaagt gctgcccagc ttctggatcc
                                                                   540
cgtcgctgac gcccgaagcc aaggccacca agctggagaa gccgtcccgc acggtgacct
                                                                   600
gccccatgtc agggaagccc ctgcgcatgt cggacctgac gcccgtgcac ttcacaccgc
                                                                   660
tagacagete egtggacege gtggggetea teaceegeag egagegetae gtgtgtgeeg
                                                                   720
tgacccgcga cagcctgagc aacgccaccc cctgcgctgt gctgcggccc tctggggctg
                                                                   780
                                                                   840
tggtcaccct cgaatgcgtg gagaagctga ttcggaagga catggtggac cctgtgactg
                                                                   900
gagacaaact cacagaccgc gacatcatcg tgctgcagcg gggcggtacc gsttcgcggg
ctccggagtg aagctgcaag cggagaaatc acggccggtg atgcaggcct gagtgtgtgc
                                                                   960
1020
                                                                  1024
<210> 45
<211> 983
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (976)
<223> n equals a,t,g, or c
<400> 45
egacaegget gegagaagae gacagaaggg eeegacegeg ageegteeag gteteagtge
                                                                    60
tgtgcccccc ccagagccta gaggatgttt catgggatcc cagccacgcc gggcatagga
                                                                   120
                                                                   180
agggagaagt acgacaacat ggcagagctg tttgcggtgg tgaagacaat gcaagccctg
                                                                   240
gagaaggeet acateaagga etgtgtetee cecagegagt acaetgeage etgeteeegg
                                                                   300
ctcctggtcc aatacaaagc tgccttcagg caggtccagg gctcagaaat cagctctatt
                                                                   360
                                                                   420
gacgaattct gccgcaagtt ccgcctggac tgcccgctgg ccatggagcg gatcaaggag
gaceggeeca teaceateaa ggaegaeaag ggeaacetea acegetgeat egeagaegtg
                                                                   480
                                                                   540
gtctcgctct tcatcacggt catggacaag ctgcgcctgg agatccgcgc catggatgag
atccageceg acetgegaga getgatggag accatgeace geatgageca ceteceacee
                                                                   600
gactttgagg gccgccagac ggtcagccag tggctgcaga ccctgagcgg catgtcggcg
                                                                   660
tcagatgage tggacgacte acaggtgcgt cagatgctgt tcgacctgga gtcagcctac
                                                                   720
                                                                   780
aacgccttca accgcttcct gcatgcctga gcccggggca ctagcccttg cacagaaggg
                                                                   840
cagagtctga ggcgatggct cctggtcccc tgtccgccac acaggccgtg gtcatccaca
                                                                   900
caactcactg tetgcagetg cetgtetggt gtetgtettt ggtgteagaa ettttgggee
                                                                   960
kgsggccggt ccccantccc ccc
                                                                   983
<210> 46
<211> 2421
<212> DNA
<213> Homo sapiens
<400> 46
ecggetgate getgeegete egecaataca atagageeak ceaetaceag eageetggee
                                                                   60
ctcttcctcc ttctccagag agaccaatcc agccgaactc ggggtttgcc tgaggagaag
                                                                   120
gaggaagtga ccatggacac aagtgaaaac agacctgaaa atgatgttcc agaacctccc
                                                                   180
                                                                   240
atgcctattg cagaccaagt cagcaatgat gaccgcccgg agggcagtgt tgaagatgag
gagaagaaag agageteget geecaaatea tteaagagga agateteegt tgteteaget
                                                                   300
                                                                   360
accaaggggg tgccagctgg aaacagtgac acagaggggg gccagcctgg tcggaaacga
                                                                   420
cgctggggag ccagcacagc caccacacag aagaaacctt ccatcagtat caccactgaa
                                                                   480
tcactaaaga gcctcatccc cgacatcaaa cccctggcgg ggcaggaggc tgttgtggat
                                                                   540
cttcatgctg atgactctcg catctctgag gatgagacag agcgtaatgg cgatgatggg
```

acccatgaca aggggctgaa aatatgccgg acagtcactc aggtagtacc tgcagagggc

```
660
caggagaatg ggcagaggga agaagaggaa gaagagaagg aacctgaagc agaacctcct
                                                                        720
gtacctcccc aggtgtcagt agaggtggcc ttgccccac ctgcagagca tgaagtaaag
                                                                        780
aaagtgactt taggagatac cttaactcga cgttccatta gccagcagaa gtccggagtt
                                                                        840
tocattacca ttgatgaccc agtocgaact goocaggtgo cotcoccaco coggggcaag
attagcaaca ttgtccatat ctccaatttg gtccgtcctt tcactttagg ccagctaaag
                                                                       900
gagttgttgg ggcgcacagg aaccttggtg gaagaggcct tctggattga caagatcaaa
                                                                       960
                                                                      1020
totcattgct ttgtaacgta ctcaacagta gaggaagctg ttgccacccg cacagctctg
cacggggtca aatggcccca gtccaatccc aaattccttt gtgctgacta tgccgagcaa
                                                                      1080
gatgagetgg attateaceg aggeetettg gtggacegte eetetgaaae taagacagag
                                                                      1140
qaqcaqqqaa taccacqqcc cctqcacccc ccaccccac ccccqqtcca gccaccacaq
                                                                      1260
caccccggg cagagcagcg ggagcaggaa cgggcagtgc gggaacagtg ggcagaacgg
                                                                      1320
gaacgggaaa tggagcggcg ggagcggact cgatcagagc gtgaatggga tcgggacaaa
                                                                      138.0
gttcgagaag ggccccgttc ccgatcaagg tcccgtracc gccgccgcaa ggaacgtgcg
aagtctaaag aaaagaagag tgagaagaaa gagaaagccc aggaggaacc acctgccaag
                                                                      1440
ctgctggatg accttttccg aaagaccaag gcagctccct gcatctattg gctcccactg
                                                                      1500
actgacagcc agatcgttca gaaagaggca gagcgggccg aacgggccaa ggagcgggag
                                                                      1560
aagcggcgaa aggagcaaga agaagaagag caaaaggagc gggagaagga agccgagcgg
                                                                      1620
gaacggaacc gacagctgga gcgagagaaa cgtcgggagc acagtcggga gagggacagg
                                                                      1680
gagagagaga gagaaaggga gcgggacagg ggggaccgag atcgggatag ggaaagggac
                                                                      1740
cgagaacgag gcagggaaag ggatcgcagg gacaccaagc gccacagcag aagccggagt
                                                                      1800
cggagcacac ctgtgcggga ccggggtggg cgccgctagc tgggaaaaca ctagagctgc
                                                                      1860
aggtaccagc cacteggeec cagggggtta tggecacaga gggataggea cagteteeac
                                                                      1920
caccetggag ccaagggtet tteacateae etatecetae atacatacea aatggaaaag
                                                                      1980
tggccatcct tttcccccca aacaccccc cttaacctat ctcttgggac ttagcccgac
                                                                       2040
cctcctctc atttcccatt aagtctgaga ggcaagagct aggttaggca aggaggtggt
                                                                       2100
                                                                       2160
tggccagaga tggggaacag ccaggtgccc cagtcctctg atttttcctc catcctgctt
                                                                       2220
accacctccc tgggtactta cagccttctc ttgggaacag ccggggccag gactgggtca
cctatgagct gaatcagcat ctcctcctga gtcccagggc ccctgcagtt cccagtctct
                                                                      2280
totgtoctgc agoodtigco totttoccac aggittocact tiatatocac ottitoctti
                                                                       2340
                                                                       2400
tgttcaattt ttatttttat ttttttatt attaaatgat gtggtctatg gaaaaaaaa
                                                                       2421
taaaaatctg acttagtttt a
<210> 47
<211> 840
<212> DNA
<213> Homo sapiens
<400> 47
                                                                         60
ctcaaactcc tgagctgaag cgatctacct gcctcagcta ggattacagg tgtgagccac
                                                                        120
cqcacccaac ctcaataagc ktatttgata aaakatatgc aagctccctt tatkcacttt
                                                                        180
tcattcaqaa tqtttagtaa tttgtattgt ttttcagatt ttcagcccaa tatatctccy
tgcccactgt gtcactgtat tctacctawa catcatcacg tgtttctgct attggctgta
                                                                        240
tgatggaaca ctgcggctca ttttcctgaa aactgccgat agtgcataga rtgctgggat
                                                                        300
                                                                        360
ggaaaccaga arctitgaat tcaagccttg gttctgcctt gtftttgctt gggtggcctt
                                                                        420
gagtcagcca catacctttt aaaatctcaa tttattagaa attattccaa atcaaaatca
aatgagaagg tatatacaaa agtgctttat cccacaataa actattcaag agagagcaaa
                                                                        480
                                                                        540
ggagaggaca tttactcaac acctcctaaa aggcagccag tgaaattagg cattttattt
                                                                        600
aatcctcctg gcaactctga gagtaaagca ttattaatcc cattttggct gtttaaagaa
                                                                        660
attatttgca ctagattcca gctgtagttt agyttcagaa aaaaaaatcc tgagatgtga
                                                                        720
attcacaget ttctgggttt aaageecaag etetateaca teatgetatt attgttacat
                                                                        780
tactgctagt tctatgaaaa gaaatactaa tttatgaaat acatcttatc caaaaaaaaa
                                                                        840
aaaaaaaaac tgggaggggg ggcccgtacc caaatcgccg gatagtgatc gtaaacaatc
```

<210> 48 <211> 2432

<212> DNA

```
<213> Homo sapiens
<220>
<221> SITE
<222> (593)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2049)
<223> n equals a,t,g, or c
<400> 48
                                                                        60
ggcacgaggc ccggaacgct gaggaagggc ccgtcccgcc ttccccggcg cgccatggag
ccccgggcgg ttgcagaagc cgtggagacg ggtgaggagg atgtgattat ggaagctctg
                                                                       120
cggtcataca accaggagca ctcccagagc ttcacgtttg atgatgccca acaggaggac
                                                                       180
cggaagagac tggcggastg ctggtctccg tcctggaaca gggcttgcca ccctcccacc
                                                                       240
gtgtcatctg gctgcagagt gtccgaatcc tgtcccggga ccgcaactgc ctggacccgt
                                                                       300
tcaccagccg ccagagcctg caggcaytag cctgytatgy tgacatetet gtetetgagg
                                                                       360
ggtccgtccc agagtccgca gacatggatg ttgtactgga gtccctcaag tgcctgtgca
                                                                       420
acctcgtgct cagcagccct gtggcacaga tgctggcagc agaggcccgc ctagtggtga
                                                                       480
ageteacaga gegtgtgggg etgtacegtg agaggagett ecceeacgat gtecagtiet
                                                                       540
ttgacttgcg gctcctcttc ctgctaacgg cactccgcac cgatgtgcgc canagctgtt
                                                                       600
tcaggagetg aaaggagtge geetgetaae tgacacaetg gagetgaege tgggggtgae
                                                                       660
teetgaaggg aacceeccae ecaegeteet teetteecaa gagaetgage gggeeatgga
                                                                       720
                                                                       780
gatecteaaa gtgetettea acateaceet ggaetecate aagggggagg tggaegagga
agacgctgcc ctttaccgac acctggggac ccttctccgg cactgtgtga tgatcgctac
                                                                       840
tgctggagac cgcacagagg agttccacgg ccacgcagta ascctcctgg ggaacttgcc
                                                                       900
                                                                       960
cctcaagtgt ctggatgttc tcctcaccct ggagccacat ggagactcca cggagttcat
                                                                       1020
gggagtgaat atggatgtga ttcgtgccct cctcatcttc ctagagaagc gtttgcacaa
                                                                       1080
gacacacagg ctgaaggaga gtgtagetee egtgetgage gtgetgaetg aatgtgeeeg
gatgcaccgc ccagccagga agttcctgaa ggcccaggtg ctgccccctc tgcgggatgt
                                                                      1140
gaggacacgg cctgaggttg gggagatgct gcggaacaag cttgtccgcc tcatgacaca
cctggacaca gatgtgaaga gggtggctgc cgagttcttg tttgtcctgt gctctgagag
tgtgccccga ttcatcaagt acacaggcta tgggaatgct gctggccttc tggctgccag
                                                                      1320
gggcctcatg gcaggaggcg gcccgagggc agtactcaga ggatgaggac acagacacag
                                                                      1380
atgagtacaa ggaagccaaa gccagcataa accctgtgac cgggagggtg gaggagaagc
                                                                      1440
cgcctaaccc tatggagggc atgacagagg agcagaagga gcacgaggcc atgaagctgg
                                                                      1500
                                                                      1560
tgaccatgtt tgacaagctc tccaggaaca gagtcatcca gccaatgggg atgagtcccc
ggggtcatct tacgtccctg caggatgcca tgtgcgagac tatggagcag cagctctcct
                                                                      1620
                                                                      1680
cggaccctga ctcggaccct gactgaggat ggcagctctt ctgctccccc atcaggactg
                                                                      1740
gtgctgcttc cagagacttc cttggggttg caacctgggg aagccacatc ccactggatc
                                                                      1800
cacaccegee eccacttete catettagaa acceettete tigacteeeg tietgiteat
                                                                      1860
gatttgcctc tggtccagtt tctcatctct ggactgcaac ggtcttcttg tgctagaact
caggeteage etegaattee acagacgaag taetttettt tgtetgegee aagaggaatg
                                                                       1920
tgttcagaag ctgctgcctg agggcagggc ctacctgggc acacagaaga gcatatggga
                                                                       1980
                                                                       2040
gggcaggggt ttgggtgtgg gtgcacacaa agcaagcacc atctgggatt ggcacactgg
cagagemant gtkttggggt atgtgetgea etteccaggg agaaaacetg teagaacttt
                                                                       2100
ccatacgagt atatcagaac acaccettee aaggtatgta tgetetgttg tteetgteet
                                                                       2160
                                                                      2220
gtcttcactg agcgcagggc tggaggcctc ttagacattc tccttggtcc tcgttcagct
gcccactgta gtatccacag tgcccgagtt ctcgctggtt ttggcaatta aacctccttc
                                                                       2280
                                                                       2340
ctactggttt agactacact tacaacaagg aaaatgcccc tcgtgtgacc atagattgag
                                                                       2400
atttatacca cataccacac atagccacag aaacatcatc tigaaataaa gaagagtttt
                                                                       2432
ggacaaaaaa aaaaaaaaaa aa
```

<210> 49 <211> 1742

```
<212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (35)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (570)
 <223> n equals a,t,g, or c
 <400> 49
                                                                        60
 gtcctgcagg agctgcacgc ggccgaggtg cgcangaaca aggagcagcg agaagagatg
 tegggetaag ggeeeggsae grgsggegee cateetgega eggaacaegt tegggttttg
                                                                       120
 gttttgtttc gttcacctct gtctagatgc aacttttgtt cctcctccc caccccagec
                                                                       180
 cocagettea tgettetett cegeacteag cegecetgee etgteetegt ggtgagtege
                                                                       240
 tgaccacggc ttcccctgca ggagccgccg ggcgtgraga cgcggtccct cggtgcagac
 accaggoogg gogoggotgg gtccccoggg ggccctgtga gagaggtggy ggtgaccgtg
                                                                       360
 gtaaacccag ggcggtggcg tgggatcrcg ggtccttacg ctgggctgtc tggtcagcac
                                                                       420
 gtgcaggtca gggcaggtcc tctgagccgg cgccctggc cagcaggcga ggctacagta
                                                                       480
                                                                       540
 cctgctgtct ttccaggggg aaggggctcc ccatgaggra ggggggacgg gggagggggg
 tgatggtgcc tgggaagcct gcktgtgcan ccggtgcttg ttgaactggc aggcgggtgg
                                                                       600
 gtgggggctg cagctttcct taatgtggtt gcacaggggt cctctragac cacctggcgt
                                                                       660
                                                                       720
 gaggtggaca ccctgggcct tcctggaagc ctgcagttgg gggcctgccc tgagtctgct
 ggggagtggg cattetetge cagggaceca tgagcagget geatggteta gaggttgtgg
                                                                       780
 gcagcatgga cagtccccca ctcagaagtg caagagttcc aaagagcctc tggcccaggc
                                                                       840
                                                                       900
 eceteegtgg gacageeeeg eegeeeetee ecaceaggge tttgeagatg teettgaaag
                                                                       960
 acceacecta gagecettig gagigetgge eceteetgig ecetetgeee tggiggaage
 ggcascacaa gtcctcctca gggagcccca agggggattt tktgggaccg ctgcccacag
                                                                      1020
 atccaggtgt tggaagggca gcgggtaagg ttcccaagcc agccccaaca cccttcccac
                                                                      1080
                                                                      1140
 ttggcaccca gagggggctg tgggtggagg cctgactcca ggcctctcct gcccacaccc
 tetgggetga gtteettett teeettggac geceagtget ggeettggag gaeggteage
                                                                      1200
tggaggatgg cggtggggga ggctgtcttt gtaccactgc agcatccccc acttctccac
                                                                      1260
 ggaagcccca tcccaaagct gctgcctggc cccttgctgt aaagtgtgaa gggggcggct
                                                                      1320
                                                                      1380
 gagttetett aggacecaga gecagggee teaaetteea teetgeggga ggeettggee
 gggcactgcc agtgtcttcc agagccacac ccagggacca cgggaggatc ctgaccctg
 cagggeteag gggteageag ggacecaetg ceceatetee etetececae caagacagee
                                                                      1500
 ccagaaggag cagccagctg ggatgggaac ccaaggctgt ccacatctgg cttttgtggg
 actcagaaag ggaagcagaa ctgagggctg ggatattcct catggtggca gcgctcatag
 cgaaagccta ctgtaatatg cacccatctc atccacgtag taaagtgaac ttaaaaaattc
 1740
                                                                      1742
 <210> 50
 <211> 1487
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (1486)
<223> n equals a,t,g, or c
<400> 50
 ggcacgagcc tccgcgaact gtggagtcgg cggagggctg gaatcagcgt gggctccagg
```

```
tcgctggcag ccgggtggca gaactcttcc gaggctcctt gggaagaagc tacacccgag
                                                                     120
                                                                     180
ggagccggat gggcctcgaa aacctggccc gctctggttc tgtaccattg caaggggaac
cgtaaactga gcttttctaa cgtgggtttc tgccaagtac ttttccagct gcccccttcc
                                                                     240
                                                                     300
ccccagcaca caggagagcc tctgtgtagc cagcgcttga cagtcgttag gtaggttgta
                                                                     360
ctgtgtaggg aggagctcaa gatcatgaat ggttgtcaca ggagaaagcg gttgcatctt
                                                                     420
agttcacact ggcacattct cagggctgtg cagattattt gcacittatt tcataggtgr
                                                                     480
                                                                     540
ataagtgctt tttagctttc tttgtatatt gagttgcttt tgaattgctt cccatatttt
                                                                     600
tatttcatac aaactgaaca attgtggccc ctctatttta tttataaagg ttcagtgtat
                                                                     660
ctttgcctgc ctacatcaat ctgcaaggga gttgcagaaa gcctcatgtt catcgagccg
tgagtcacaa ccaatttcta agctgttata acaaaaaagt gtttgctttt tttcacaagt
                                                                     720
aactttaaaa gtgtagttta gaaagaaaac attttcaata aaaagacact acattaatcc
                                                                     780
tggatgcttg caaatcctaa aatmtattcc tcctctagcg ttgcacagct ctgtgttgta
                                                                     840
                                                                     900
tacacagact agetttaaaa tttgtcacat accactttac etttactttt atgtatcatt
ccccgactt ccttactgca ggtgtgggca agaaaacttt tcctttaaca cttttcaaca
                                                                     960
                                                                    1020
gcgggcataa aattctgcag ctgaggtctt gaagaatgca gatgggtaca gtatgtgttg
gageteacag tgtgtattga etaacetagt teetttttttg ettttttgg tattgtettg
                                                                    1080
ttaaaagtga ctcccaggta gcaactctct tttttaaggg tgggaacgaa agggacgtag
                                                                    1140
                                                                    1200
gaagaataga totagattat ttaacagtot togatagagt ttgaaagott tottottoat
tcaattttgg gcaaaatact gcctctgcat ttgttcataa caaaaagatt agattaataa
                                                                    1260
                                                                    1320
gtagcttttg ttggtggaaa ttaccagctc tataagtcac ccttggtggt tcatggacct
ctgattagct tgggttttgc agtctcattg ccacatgtat atgtggagcc aatggccttt
                                                                    1380
tggtgctcag ctgtttacgt ctgactcctt gacttctttg gtacagtgat ggagtcagat
                                                                    1440
                                                                    1487
ctcattaagt gtgattctcc atggatataa ccagccccaa aaaaang
```

<210> 51 <211> 1328 <212> DNA <213> Homo sapiens

<400> 51 ggcacgagct cgtgccgaat tcggcacgag agaagatttg aagaagccag atccagcttc 60 cctgcgggct gcttcttgtg gggaagggaa aaagaggaag gcctgtaaga actgcacctg 120 180 240 gtcagcttgt ggaaactgct acctgggcga tgccttccgc tgtgccagct gcccctacct 300 tgggatgcca gccttcaaac ctggggaaaa ggtgcttctg agtgatagca atcttcatga tgcctaggag gttcctgaca tgggacccat ctgctcctcc agccaactcc tgtccctcac 360 atcccaccat ggtggctcct cccacctcct ctggatttgt tcactctgag atctgtttgc 420 agagtgggtg cttagcagac agagtgaagc tggctggggg gcacagtggt gtgtagtgct 480 gctgtgtatc aaaagaccaa ggtattatgg gacctggttt cagaatggga tgggtttctt 540 cacctcatgt taagagaagg gagtgtgtcc tgaagaagcc cttcttctga tgttaaaatg 600 660 ctgaccagaa cgctcttgag cccaggcatc gttgagcatt aacactctgt gacagagctg cagacccctg ccttgagtct catctcagca atgctgccac cctcttgtct ttcagagttg 720 780 ttagtttact ccattctttg tgacacgagt caagtggctc acaacctcct cagggcacca gaggactcac tcactggttg ctgtgatgat atccagtgtc cctctgcccc cttccatccc 840 900 caaccacatt tgactgtage attgcatctg tgtcctgttg tcatttatgt taaccttcag 960 gtattaaact tgctgcatat cttgacatat cttgagattc tgcatgtctt gtaaagagag gggatgtgca tttgtgtgtg atgttggata gtcatccacg ctcagtttgg accattggag 1020 gaacttagtg teaegeacaa atggggetat teetaegett agaataggge tigtetgeee 1080 1140 actttagaag agtcccaggt tggtgagcat ttagagggaa gcagggcaga actctgaacg 1200 acaatacgtc tctctgagca gagacccctt tgttcttgtt atccacccat atggacttgg 1260 aatcaatctt gccaaatatt tggagagatt gtgtggattt aagagacctg gatttttata ttttaccagt aaataaaagt tttcattgat atctgtcctt gaaaaaaaaa aaaaaaaaa 1320 1328 aaactcga .

<223> n equals a,t,g, or c

```
<211> 1856
<212> DNA
<213> Homo sapiens
<400> 52
gaatteggea egagetetge aacattgeaa atgaaettge ageegagggt teegetgeee
                                                                        60
cctagattaa attccccggg ctgaaactga gttgcagatt tacaatatca tattttaaat
                                                                       120
tgctgtcttc aattaaacca tttatgacca taactaattt tcaggatgtc gatgcatgct
                                                                       180
tttccaggcc ttccttcttt gtacaaaagt aaatgtccat aaagcgtttc acttatattc
                                                                        240
ttcaaacatg atgctaattt aaattaatta cttcctatga tatgttatta ttcctatgat
                                                                       300
tttgccactg ttattagttc tctcaaaaat acatctaggg aagaggatta ttttaagtra
                                                                       360
                                                                        420
tttgattatc tttctatctc ttttatttat ttctcattta cttaagaaat tcgttccatt
                                                                        480
ggttggcatt gatacagtaa atttgtaaat gaggagacaa tataaaaaat ctaaattact
                                                                       540
tgtgcttaat gactgtagca gaatscottt tototaaato agattgtott tottgcagtt
                                                                        600
tagtttgata gatttgcaag ctatgctgct tccatgaagt tagctgcgct ggtaggaacg
                                                                       660
caggettett tgtetetggt tgtagettge atgategeee cattaggeag acaaegtage
                                                                       720
cggagatcac aaatcaggcc cttggtgtag ttgctagtgt gtggaggtgc agagaggttg
                                                                       780
gcagaaactg acctcactgg gcaagggtgg ccatggacct gattctttaa tgcactctat
gtgttcagga agccacaggc catatttgac tctgagaaag aaaacaagag gaaaaacccc
                                                                        840
acaaagtata acaacccctt aagatacatc tattttaaag tgaaattaat ttttcagttt
                                                                       900
                                                                       960
ataccattgg ccaattacaa gataaaaatg ttcaatttct ttaagaatcc tttgttgact
tgtcttttca tctcttgcta tttatatttg tcactgttag tcaacaaagt cttatttgct
                                                                      1020
gaggaaggac tttgctgcac ttactgtacc acatcaaaca ctggggaggg tggtgtttaa
                                                                      1080
ctttttaaaa aatgttattc tgattataac aataatattg gcttttttca tgaaaagagc
                                                                      1140
gccaccttgc aaggtttagt gagatttatg gaagttgaat acctaagcag gaattgctgc
                                                                      1200
tagctccaaa aatttgcgaa gcaaaagcta gccccaattg gtttggaagt ttgaaactga
                                                                      1260
ttaacagatt tgcatttgaa gtgactccag acattaggtc cagacattag ttaaaaatag
                                                                      1320
aaagaggaat aaagacatct yttototota gaaaagataa caccrcaatt aataatoott
                                                                      1380
cccactttca ttgagatcag cttgtctgat aacctgatat gagtgtgata atgataaaca
                                                                      1440
tgataatagt ggtacttttg taattttgct ggtgcattta agaagatagt aaakgatgag
                                                                       1500
ttcayctttt ctycgaacat ycctatycct agatgtagtt tacctcaaat tgggaattat
                                                                       1560
aactgtccta attitigtig tgtaccctga tgcccctttt gctttaatac ccacagtgta
                                                                       1620
acaattaaat atcacactat gacatatgat ttaagtagga tattttaaag ataaatttta
                                                                       1680
ggggtaaatg tttacttcaa aatgactcca tatttcaaat atctgtttag actgtgaagg
                                                                       1740
ccaaataatt tttaagaaaa catttgaaga gtagtgtgtt tgcatttgtg aataatctta.
                                                                       1800
ctcacagcaa gtaaacgtaa taaaagccaa catttaagcc aaaaaaaaa aaaaaa
                                                                       1856
<210> 53
<211> 1558
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1514)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1551)
```

```
<220>
<221> SITE
<222> (1556)
<223> n equals a,t,g, or c
<400> 53
tgggtatcca ttcctgnaat tactttactt aggataatgg cctccagctc cgtccaagtt
                                                                         60
                                                                        120
gctgcaaaag gtattatttc gttccttttt gtggctgagt agtattccat ggtgtatata
                                                                        180
taccacattt tetttateca eteattgett gatgggeagt taggttggtt ecacatettt
                                                                        240
gcaattgtga gttgtgctgc tccagatatc atctttaact cctttgcctt ctccacatac
                                                                        300
atttccaagt cctgttcatt ctacctccaa aatgtatctt gtatccattc atctctccc
atcttcaatc tatttcaatg ccccatcatc tcttgcatgg aggagtgtaa taattggcta
                                                                        360
actggcctgt tcttacattt taaaatcaaa agatgtgaca ggtgaaatgc ctatttcagt
                                                                        420
gtccattgat ggttctgctt acacaccacc tggctgcctg gtgtcgcagt ggcagagttg
                                                                        480
                                                                        540
agcagtgtga aaaagactgc ttggcccttt acagggaaag caggtccact gtggcctgtg
aggacgagag ctctgggcag gctcggacac tggcagaccc tggtcctggc tggccaaggc
                                                                        600
                                                                        660
agcagggtat gtgtttcggg tcactcacag ggctcagcac cactcctcat ggcttcctta
ctgtttcggc agaggctgac ccgcggctga ttgagtccct ctcccagatg ctgtccatgg
                                                                        720
                                                                        780
gettetetga tgaaggegge tggeteacea ggeteetgea gaccaagaac tatgacateg
                                                                        840
gagcggctct ggacaccatc cagtattcaa agcatccccc gccgttgtga ccacttttgc
ccacctcttc tgcgtgcccc tcttctgtct catagttgtg ttaagcttgc gtagaattgc
                                                                        900
                                                                        960
aggtctctgt acgggccagt ttctctgcct tcttccagga tcaggggtta gggtgcaaga
                                                                       1020
agccatttag ggcagcaaaa caagtgacat gaagggaggg teeetgtgtg tgtgtgtget
gatgtttcct gggtgccctg gctccttgca gcagggctgg gcctgcgaga cccaaggctc
                                                                       1080
actgcagcgc getectgace ectecetgca ggggetacgt tagcageeca gcacataget
                                                                       1140
tgcctaatgg ctttcacttt ctcttttgtt ttaaatgact cataggtccc tgacatttag
                                                                       1200
ttgattattt tctgctacag acctggtaca ctctgatttt agataaagta agcctaggtg
                                                                       1260
ttgtcagcag gcaggctggg gaggccagtg ttgtgggctt cctgctggga ctgagaaggc
                                                                       1320
                                                                       1380
tcacgaaggg catccgcaat gttggtttca ctgagagctg cctcctggtc tcttcaccac
                                                                       1440
tgtagttctc tcatttccaa accatcagct gcttttaaaa taagatctct ttgtagccat
                                                                       1500
cctqttaaat ttgtaaacaa tctaattaaa tggcatcagc actttaacca aaaaaaaaa
                                                                       1558
aaaaaaaaa aaanaaaaaa aaaagggggc cgctctagag gtccaagtta ngacgngg
<210> 54
<211> 948
<212> DNA
<213> Homo sapiens
<400> 54
                                                                         60
taaaaatcat gctctgtacc atcctcaccg tagtcatcat catcgccgcg cagaccacga
gaactactgg gatccctaaa aacgcccctg gtccggcccc actctgcgcc cctcgatctc
                                                                        120
ccaggetett tetgeagwea taccgeggae ccaatgggeg ccetgeacae cegtttetgg
                                                                        180
ggccgtcaga cttggataca tcgtaaactc cgcctccacg gaacgtctcg cctkgcgagc
                                                                        240
aagmtcggaa tccagttcct caggaacccc tccaaaaccc acacccccag ggacgccgct
                                                                        300
ttccgggatc ccggscaaac gccggaccct cagtcgctcc aggccccctc accctcaaag
                                                                        360
                                                                        420
tgtagcgccc ccaaccgagc aacctcggtt tggtccctaa aaccccgcct cctctataag
caccgcccca getetgacaa aaccccgcct ccaggtegge aggeteeget tetttette
                                                                        480
                                                                        540
tccgcggggt gattcagtcc agtgattggg tttgtggctc caggcctcgc ccacagacgg
                                                                        600
acagacccct ccctttcttc cggcaaaagg accgagccct ggggtagtaa ggsccccaca
ctcctgtttt ttgcaagtac atttttgtcc ytcctccacc caggtatctg cctattttct
                                                                        660
                                                                        720
tqctaatccc agaacctttc cttttgcttt ttttaaggac atttgggaag ttcctggtgt
                                                                        780
aggaccette tecetgggat aagaaacetg cetgtaaacg etetgtaaat acteeettee
acceatecea geceetggge ageegggeag aagggaatee aggetatgga ceteecaagt
                                                                        840
                                                                        900
ccccgctccc cgctcccctc ggcggccccg ccttgttctg atctgtgtgt gagtgtgtgt
                                                                        948
gaacttctga aagacaatat taaagagact tagttgaaaa aaaaaaaa
```

```
<210> 55
<211> 990
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (751)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (879)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (888)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (897)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (899)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (901)
<223> n equals a,t,g, or c
<400> 55
ggggaactgc agtgacagca ggagtaagag tgggaggcag gacagagctg ggacacaggt
                                                                        60
atggagaggg ggttcagcga gcctagagag ggcagactat cagggtgccg gcggtgagaa
                                                                        120
tccagggaga ggagcggaaa cagaagaggg gcagaagacc ggggcacttg tgggttgcag
                                                                        180
ageccetcag ccatgttggg agecaageca caetggetae caggteecet acaeagteec
                                                                        240
                                                                        300
gggctgccct tggttctggt gcttctggcc ctgggggccg ggtgggccca ggaggggtca
                                                                        360
gagecegtee tgetggaggg ggagtgeetg gtggtetgtg ageetggeeg agetgetgea
ggggggcccg ggggagcagc cctgggagag gcaccccctg ggcgagtggc atttgytgcg
                                                                        420
                                                                        480
gtccgaagcc accaccatga gccagcaggg gaaaccggca atggcaccag tggggccatc
tacttcgacc aggtcctggt gaacgagggc ggtggctttg accgggcctc tggctccttc
                                                                        540
gtagecectg teeggggtgt etacagette eggtteeatg tggtgaaggt gtacaacege
                                                                        600
                                                                        660
caaactgtcc aggtgagect gatgctgaac acgtggectg tcatctcage ctttgccaat
                                                                        720
gatectgacg tgacceggga ggeagecace agetetgtge tactgeeett ggaccetggg
gaccgagtgt ctctgcgcct gcgtcggggg naatctactg ggtggttgga aatactcaag
                                                                        780
                                                                        840
tttctctggc ttcctcatct tccctctctg aaggacccaa gtctttcaag cacaagaatc
                                                                        900
cagoccotga caactttott otgocctoto ttgoccoana aacagoanaa goagganana
                                                                        960
nactocotot ggotoctato coacotottt gcatgggaac otgtgccaaa cacccaagtt
                                                                        990
taagaaaaa ataaaactgt ggcatctcca
```

<210> 56

<211> 1603

<212> DNA

```
<213> Homo sapiens
<220>
<221> SITE
<222> (328)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (336)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (341)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (788)
<223> n equals a,t,g, or c
<400> 56
ggtcgaccca cgcgtccggc ccgccggctc cggagcggct ctgccttccc gagcgcggga
                                                                         60
ccgcgccctg ggggaggagg gcgaacgacg cggcgatggc tccgcgggca ctcccggggt
                                                                        120
ecgeegteet ageegetget gtettegtgg gaggegeegt gagttegeeg etggtggete
                                                                        180
cggacaatgg gagcagccgc acattgcact ccagaacaga gacgaccccg tcgcccagca
                                                                        240
acgatactgg gaatggacac ccagaatata ttgcatacgc gcttgtccct gtgttcttta
                                                                        300
tcatgggtct ctttggcgtc ctcatttngc camctngctt naagaagaaa ggctatcgtt
                                                                        360
gtacaacaga agcagagcaa gatatcgaag aagaaaaagg ttgaaaagwt agrattgaat
                                                                        420
gacagtgtga atgaaaacag tgacactgtt gggcaaatcg tccactacat catgaaaaat
                                                                        480
                                                                        540
gaagegaatg ctgatgtytt aaaggegatg gtageagata acageetgta tgateetgaa
                                                                        600
agccccgtga cccccagcac accagggagc ccgccagtga gtcctgggct ttgtcaccag
                                                                        660
gggggacgcc agggaagcac gtctgtggcc atcatctgca tacggtgggc ggtgtwgtcg
agagggatgt gtgtcatcgg tgtaggcaca agcggtggca ctttataaag cccactaaca
                                                                        720
                                                                        780
agtocagaga gagcagacca cggcgccaag gcgaggtcac ggtcctttct gttggcagat
                                                                        840
ttagagtnac aaaagtggag cacaagtcaa accagaagga acggagaagc ctgatgtctg
                                                                        900
ttagtggggc tgaaaccgtc aatggggagg tgccggcaac acctgtgaag.agagaacgca
                                                                        960
gtggcacaga gtagcaggtg agccgtggtt ttggtgacat tggggggcaga gtggtgcagg
                                                                       1020
gtgaggagaa ggtacttgga gcctcccagg tgctgtggca gcataggaat ggtatttgac
                                                                       1080
agggaagtgg gagagctttc cttgacccag gaagactgag ggggactgaa catgattact
                                                                       1140
tgtctgccta gagcttcttg taaagaagtc acaaacttag tgcctccagg ggcttggctg
tgtgataatg aggatagagg attacttgtg aggcaatgtg gcatggtggg gattgtggca
                                                                       1200
aactagaatt cacatcaccc accatatagg gcttgcatta ccacgaggca gaaagcacct
                                                                       1260
agtgttgctg catcttctta cgcaaaaaag acaaaatcca gacttctaaa atgtaaaatc
                                                                       1320
actgattttc gatattggca gcttactttt tttttttaaa caaccatgca ggccaaatga
                                                                       1380
cttqtaatct tqtcaccatt tttaggtaaa ctgtgacttg aaaaagtctg gagcaaacaa
                                                                       1440
accaatgctt tttcctttta ttctgttggr aaccagtttt ctttgtgtca cagttytgaa
                                                                       1500
                                                                       1560
acctcaatac qaatatttct cttcccacca aatattttga ggcaattgaa aagccacagt
                                                                       1603
gatttatttc ttgatttggc aattttaatt ttgcaagaca att
<210> 57
```

<211> 1052

<212> DNA

<213> Homo sapiens

<22.2> (751)

```
<221> SITE
<222> (250)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1051)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1052)
<223> n equals a,t,g, or c
<400> 57
tacageteag gatgeetgta acattgteat etetgggett etgggteetg ettageetge
                                                                         60
tttttccctg gaggactgac cagggatgcg gcccagcaac atgttactaa atcatactct
                                                                        120
cotcoctace tttcccagae eteteactee tgcctggtgt tecaaccegt tetgtggcca
                                                                        180
gagtatacat tttggaacct.cttcgaggcc atcctgcagt tccagatgaa ccatagcgtg
                                                                        240
cttcagcagn aaggcccgag acatgtatgc agaggagcgg aagaggcagc agctggagag
                                                                        300
                                                                        360
ggaccaggct acagtgacag agcagctgct gcgagagggg ctccaagcca gtggggacgc
                                                                        420
ccagctccga aggacacgct tgcacaaact ctcggccaga cgggaagagc gagtccaagg
                                                                        480
cttcctgcag gccttggaac tcaagcgagc tgactgctg gcccgtctgg gcactgcatc
agectgaatg aggetggeca cetgecaett tgeeetgeee tetgeeteea gggeteemet
                                                                        540
myccttcctt ttcttggtga aaggcacctc ctttcctgat aatgaatggt gttccctttg
                                                                        600
cttggctggg gagccccca ggccaggttt gctggccata gatacctttg ggctgcctgr
                                                                        660
gacaggetee tgaggaggat tgagggtgaa agteteecac gagtacacta aacetaggte
                                                                        720
tggtcaccaa tagggtttgg agagcaaagg gccacaactc atcagctgcc tgtctcttag
                                                                        780
atgractite titticcace agracatect teaacacaca gaatticagg gaagagtiet
                                                                        840
ccccaaaacc ctagctcttt acccttccat tttagccttc cacccagctt ccacaaaaga
                                                                        900
tttggctcta ccttggatct gctagtaaat aactaatagg caggcagtta tttgggtaag
                                                                        960
gaaaaaaggg gtgggagaga cagaaaattt gcccactgct gctcctcccc ttggstytcc
                                                                       1020
acctgggatt tgctattgaa tctctaccct nn
<210> 58
<211> 814
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (6)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (32)
<223> n equals a,t,g, or c
<220>
<221> SITE
```

```
<223> n equals a,t,q, or c
 <220>
 <221> SITE
 <222> (770)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (784)
 <223> n equals a,t,g, or c
 acnognings ggccgcicta gaactagggg ancoccoggg cigcaggaat toggcacgag
 catagacttt taaactggta cggttcttag agatggtcct tggccttctg ttgttgttgt
                                                                  120
 180
                                                                240
 ttttttttca gagtcttgct ctgtcaccaa gactggagtg aagtgatgtg atctcggctt
                                                                  300
actgcaacct gggaggcaga ggttgcagtg agtcgagatg gtgccattgc tctcgtttgg
 360
 gtcattactg gtgggatctg gtcacacaag atagcattaa acgtgacatg gcacataaaa
ttggttaaaa aattttgttt tttaattacg taatgtaaaa gcccaacaaa cactttatgc
aagattggaa tgtatcttca aattcagatt taataaacat gtaaagatcc tctgtatata
aaagttgtat ttaatccctt gtgccccaag aatgctataa aagatcccaa gaatgttatc
 tatgaaaaga tagcaatagg gaatggtgaa caaataattt aatttgccaa ttctaaaaaa
catggactta aaccccatga aaacttggtt ccatagtttt aactgtttta tggttccaat
                                                                  720
 acaaaaccag agtggtttac attccacaat naccaaattt gcatccaatn ttggggtaat
                                                                  780
                                                                  814
 tttnggtatt tgccatggga tactattcat tttt
 <210> 59
<211> 1215
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (345)
 <223> n equals a,t,g, or c
<220>
<221> SITE
 <222> (1024)
. <223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1098)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1186)
<223> n equals a,t,g, or c
<400> 59
agaggaagtc ttttgccaag cctgttctct ggactaacgc catccaggct gggaggggaa
                                                                  120
gagtgetetg ctacactegt eccectectg ceteatette etteteagee ttggtteetg
atgggaacag aatggagggc ctgagaacat actttctaaa tgcctttgac ccaggaaccg
                                                                  180
```

```
attatctata tttgttccca ttttccttca ccgtgacatt ccagcattgt ctgactgtga
                                                                         240
ggtgggcctt tgagagcctc caggttcctc aaaacaggcc tgagcgatgg gcatcacacc
                                                                         300
ctctgcctac ccacrtgcct gcttacctgc cagataacca agtgnagatg tctgcgagtg
                                                                         360
gctagttttc acattcttac tagtgtttgg ytcacctttg ggcaaaggcc ccctctaggc
                                                                         420
cttgccccac ctccatcaaa cgcagacact gtagtcagac ctcagyaata taggaggcaa
                                                                         480
                                                                         540
taatetttta acagtgtttt geaaacaaae aaaaagagaa aaateeeage caggggaaet .
egecaectge ceaegetagt tecatecaeg etcaagaece gecettagae caggeaggea
                                                                         600
                                                                         660
aaggccccca tcacactcgg ccactagtgg ggtcctgagg ccaagaaaga aaccagaccc
tgtatgacaa gttgggktct ttccagaaca cgacagaaac agggggggcc ccttgttaat
                                                                         720
gccactccat actccagaag cattattcct tatttgggac agccaagggc agattcacag
                                                                         780
gttattgtag gaataaagac tagtttacaa aggaraaaga gsccctggac ttcccmagga
                                                                         840
                                                                         900
aaggtcaggt tagggctcct gtacccattc tgttccacca ctgtttgatc tctctggcct
cccaccagga atgccgtttc ctttttatgg atctgttggg aaccagagag aatcaacaga
                                                                        960
tcaatgacat aggatccgaa gtgcaatgat agtcacttct agtttggcat ttcacaaact,
                                                                       1020
ctgnacagca aggtattggt aggttactca atttcaaaag ggccccatgg ccaaatatgt
                                                                       1080
ttaggaaccg ctgtttgnat ttctttttt ggagacgcat tgtatataat atatgtcaaa
                                                                       1140
ggctttcgga attcctgcag gaaagaaatc agctttgtta aatccnaaaa aaaaaaaaaa
                                                                       1200
aaaaaaatag actcg
<210> 60
<211> 478
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (410)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (476)
<223> n equals a,t,g, or c
<400> 60
atttcttatg acatgggggt ttgaattggt tggcaaatgt ttaattttaa tatccataat
cagtgaggtc ctgctggctg taatcattaa ttgtgaaatc taaggagctt agttcatggc
                                                                        120
tctagaattt cacagaaaar tgygmtatga tacgagcatt aagtttattt cttctgatct
                                                                        180
ttgatgcage tttgttcagt ttatctgttt ttgtatttat tggtcatcta cttcccatge
                                                                        240
caaaagggac tggtctacat agctgcgcta aacacctgat caaatcacta aaagaaaatg
                                                                        300
tgttacctct aatgaattat cctgattgta agttaaaaat caatatttcc ccgtagtgag
                                                                        360
                                                                        420
gtttgctttt taaaaagaak kcttaaaaaa aaaaaaaaa aaacgagttn aagaaaagga
                                                                        478
agcaagetea ggtaaggtge acacattggg etaaggaage tagageetgt ggagange
<210> 61
<211> 618
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (24)
<223> n equals a,t,g, or c
<220>
<221> SITE
```

<400> 62

```
<222> (39)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (548)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (560)
<223> n equals a;t,g, or c
<220>
<221> SITE
<222> (562)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (584)
<223> n equals a,t,g, or c
<400> 61
tatgaccttg ataaccccaa gttngaaatt aaccttcant aaagggaaca aaagctggag
                                                                         60
ttcgcgcgct tgcagttcga cactagtgga tcccaaagaa ttcggcacga gtcataatga
                                                                         120
gctactaggt aagccttctg ggactttcag atattttggg gaagattgat ttttgttctt
                                                                         180
acatgctgtg gacccttggc catcaaatgg tatggggaag ctcatccgtc tgtctgtgat
ggtcatgtca gtcaggcgtc tttttagtat ttactgggtg ctcagtactg tgccagatgc
                                                                         300
tgtcgggagc cgtggtggta tggaggagga gtgctccaga ggactctgct gtgtggcagg
                                                                         360
ccagcataaa caagccaagg ggaaaaggca ggcatggaat aaagggggag aataccagtg
                                                                         420
                                                                         480
tgtgacttac tgctgactgt gtggattagc ctatcagcag taatcaagca gggcggaggg
                                                                         540
cattatcttt gagccagaag agtgagcact ggsccgaggg tggagcatca agagggggtg
                                                                         600
taggaccnca aggettettn enggggagac aacgteaata agengteagt agteacegae
                                                                         618
agttttggga agcaaggg
<210> 62
<211> 751
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (158)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (159)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (202)
<223> n equals a,t,g, or c
```

```
tegacecacg egteegagga getggaette tgagacagee atteteettg catageactg
                                                                       60
tctgctgcta cagetcatag aagtcaacaa ttttcttcaa caetggtagg cageetctaa
                                                                      120
atggccctga tcaccctcac ctcctgccat tcacaccnnt gtaaaattcc acccctggac
                                                                      180
240
ctacaaggag actacgatgc ctgccttggt caccettete ctgctcttte cattgcteee
                                                                      300
tctgatggaa gccagttgcc atgtgatgag gtgccctatg gagaggccca cgtgacaagg
                                                                      360
tattqtaaaa agcctctqac caataqccat ctagaaacgg aggcccagtc cagcagcctc
                                                                      420
tgagatgaat cctgccaacc tgagcttgga gacagattct ctccctatcc tgccttggga
                                                                      480
tgatcacage caccaccaac acettcactg cetggtgaga ggecaageca gtgaacccaa
                                                                      540
ggtaaactgg acagaatcct gacccacaga aactgagata atgtttgtta ttttaagctg
                                                                      600
ctcagtttgt tacagagcaa tagataacta actcaaacac cataaaattc taatatttta
                                                                      660
                                                                      720
ttctatcaca caaaccaggt aataccaagt aaatgccatt actatacaca tatttttgta
                                                                      751
acacaattac atgtgatttt ttaagaaggc t
<210> 63
<211> 780
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (4)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (12)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (738)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (776)
<223> n equals a,t,g, or c
<400> 63
cngncagtca cngtccccga ttcccgggtc gacccacgcg tccgggttgg caactcctga \cdot
                                                                       60
ggcctgcatg ggtgacttca cattttccta cctctccttc taatctcttc tagagcacct
                                                                      120
gctatcccca acttctagac ctgctccaaa ctagtgacta ggatagaatt tgatcccta .
                                                                      180
actcactgtc tgcggtgctc attgctgcta acagcattgc ctgtgctctc ctctcagggg
cagcatgcta acggggcgac gtcctaatcc aactgggaga agcctcagtg gtggaattcc
                                                                      300
aggcactgtg actgtcaagc tggcaagggc caggattggg ggaatggagc tggggcttag
                                                                      360
ctgggaggtg gtctgaagca gacagggaat gggagaggag gatgggaagt agacagtggc
                                                                      420
                                                                      480
tggtatggct ctgaggctcc ctggggcctg ctcaagctcc tcctgctcct tgctgttttc
tgatgatttg ggggcttggg agtccctttg tcctcatctg agactgaaat gtggggatcc
                                                                      540
                                                                      600
aggatggcct tectteetet taccetteet eceteageet geaaceteta teetggaace
                                                                      660
tgtcctccct ttctccccaa ctatgcatct gttgtctgct cctctgcaaa ggccagccag
```

```
780
gcggccgaaa gcttattncc ctttaagtaa ggggttaatt tttagcttgg gcactnggcc
<210> 64
<211> 588
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (565)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (566)
<223> n equals a,t,g, or c
<400> 64
ttccgaatta atcgactcac tataggaawt gccgtcgcca tgacccgcgg taaccagcgt
                                                                     120
gagetegeee gecagaagaa tatgaaaaag cagagegaet eggttaaggg aaagegeega
                                                                     180
gatgacgggc tttctgctgc cgcccgcaag cagagggact cggagatcat gcagcagaag
cagaaaaagg caaacgagaa gaaggaggaa cccaagtagc tttgtggctt cgtgtccaac
                                                                     240
cetettgece ttegeetgtg tgeetggage cagteecace aegetegegt tteeteetgt
                                                                     300
agtgctcaca ggtcccagca ccgatggcat tccctttgcc ctgagtctgc agcgggtccc
                                                                     360
ttttgtgctt ccttcccctc aggtagcctc tctccccctg ggccactccc gggggtgagg
                                                                     420
                                                                     480
gggttacccc ttcccagtgt tttttattcc tgtggggctc accccaaagt attaaaagta
                                                                     540
588
aaaaaaaaa aaaaaaaaa aaaanncggg ggggggcccc ccccccc
<210> 65
<211> 945
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (13)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (15)
<223> n equals a,t,g, or c
<400> 65
naatacgatc atnanagggc gattgggtac gggccccccc tcgagttttt tttttttt
                                                                     120
tttggcaagt gagaagatgc agataggcaa aaagraaaaa aaagagatca cacagagatt
                                                                     180
cactgttaac ctttggtgta taataaaatc agacactttc ctttgcatta tgtcacatag
                                                                     240
aaatgtacaa ataaagtgta catatataca cacatatatg tatacactgt tttgcaactc
                                                                     300
gttattttca ctttgcaata tacaatgagc atttttccat gcaaatgaat gagacctctt
```

attaaatgaa taagattggg tcaaaagatg agatgttgac aagagtcata tgtaaatctc

```
agcaacatcg aatgactgga gtaaaacgat agcaaatatt tatcaagaaa gtgcagacaa
                                                                      420
acagaaagca gtggcaacat taataacaga aaataattga attgtcagag aaattaatta
                                                                      480
aatgggataa ggacggtccc gagaatgcct atggttagaa tgcagagccc taaatttctt
                                                                      540
600
                                                                      660
ttcatcttta aaatgcctat agtctatgtc ctctttaaat tcttcgagag actgaagcag
cctctgtcta aaattccctt ctgtttgctg gcgttcaaat tctccatacg ggcgtttttc
                                                                      720
ctccctcttt ggcacgctgc actttggctt tccttcgttt tctttgcagg gtttttgcat
                                                                      780
gatgitgttg tigtitectg citaactetg tgeggggtag titectgete cititettee
                                                                      840
                                                                      900
cccagatgtc tgtgaacaca gatcctggga cctcttcctt cccttggcca caagcacgca
                                                                      945
cggcacgctt gtctgcaggg cagtaaggag ctggtacctc gtgcc
<210> 66
<211> 1866
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (262)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (674)
<223> n equals a,t,g, or c
<400> 66
                                                                       60
acceacgcgt ccggtcctct tcttcagcac atgccaaagc tgttcctcac ggcctgtgag
acaagagcat cttggatgta ggacaatgga agagttagat gccttattgg aggaactgga
                                                                      120
                                                                      180
acgetecace etteaggaca gtgatgaata ttecaaceca geteetette eeetggatea
gcattccaga aaggagacta accttgatga gacttcggag ațcctttcța ttcaggataa
                                                                      240
                                                                      300
cacaagtece ttgeeggege antegtgtat actaceaata teeaggaget eaatgtetae
                                                                      360
agtgaagece aagagecaaa ggaateacea eeacetteta aaaegteage agetgeteag
                                                                       420
ttggatgage teatggetea eetgaetgag atgeaggeea aggttgeagt gagageagat
                                                                       480
gctggcaaga agcacttacc agacaagcag gatcacaagg cctccctgga ctcaatgctt
gggggtctsg agcaggaatt gcaggacctt ggcattgcca cagtgcccaa gggccattgt
                                                                      540
                                                                       600
gcatcctgcc agaaaccgat tgctgggaag gtgatccatg ctctagggca atcatggcat
                                                                       660
cctgagcatt ttgtctgtac tcattgcaaa gaagagattg gctccagtcc cttctttgag
eggagtgget tggnetactg ecceaacgae taccaccaae ttttttetee aegetgtget
                                                                      720
                                                                       780
tactgcgctg ctcccatcct ggataaagtg ctgacagcaa tgaaccagac ctggcaccca
gagcacttct tctgctctca ctgcggagag gtgtttggtg cagaaggctt tcatgagaag
                                                                       840
gacaagaagc catattgccg aaaggatttc ttagccatgt tctcacccaa gtgtggtggc
                                                                       900
                                                                       960
tgcaatcgcc cagtgttgga aaactacctt tcagccatgg acactgtctg gcacccagag
                                                                      1020
tgctttgttt gtggggactg cttcaccagt ttttctactg gctccttctt tgaactggat
ggacgtccat tctgtgagct ccattaccat caccgccggg gaacgctctg ccatgggtgt
                                                                      1080
gggcagecca teactggeeg ttgtateagt gecatggggt acaagtteea teetgageae
                                                                      1140
tttgtgtgtg ctttctgcct gacacagttg tcgaagggca ttttcaggga gcagaatgac
                                                                      1200
aagacctatt gtcaaccttg cttcaataag ctcttcccac tgtaatgcca actgatccat
                                                                      1260
agcctcttca gattccttat aaaatttaaa ccaagagagg agaggaaagg gtaaattttc
                                                                      1320
tgttactgac cttctgctta atagtcttat agaaaaagga aaggtgatga gcaaataaag
                                                                      1380
                                                                      1440
gaacttctag actttacatg actaggctga taatcttatt tittaggctt ctatacagtt
                                                                      1500
aattotataa attotottto tooototott otooaatoaa goacttggag ttagatotag
```

gtccttctat ctcgtccctc tacagatgta ttttccactt gcataattca tgccaacact

ggttttctta ggtttctcca ttttcacctc tagtgatggc cctactcata tcttctctaa

tttggtcctg atacttgttt cttttcacgt tttcccattt ccctgtggct cactgtctta

caatcactgc tgtggaatca tgataccact tttagctctt tgcatcttcc ttcagtgtat ttttgttttt caagaggaag tagattttaa ctggacaact ttgagtactg acatcattga

1560 1620

1680

1740

```
1860
                                                                    1866
aaaaaa
<210> 67
<211> 1152
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (668)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (745)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1015)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1088)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1110)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1113)
<223> n equals a,t,g, or c
<400> 67
ctcaaggatg taaaggctct gcagatttcg ggaggcctgt ctcccagcac ctgatgggac
                                                                      60
actititizec ccactgiaaa tictgggtgt atcctccact giatgctgic accccaaggg
                                                                     120
caagcactgc atctgcttag tgaaqgattt attgttcgga agatacattt tccccttkag
                                                                     180
cagagagtgg cgtatcctgg cagtcttcgg tgagccagtt gtaccaggat tatgaaatgc
                                                                     240
agatgtttac tgtgtcattg ttgctgtcat tgctactgag gagtactgac .cagaatcatc
tgcaactytt agttggcaga gaggaccact atggcgggta gctcttttct ttcctgccat
tgtggggatg attccaggcc aaagatgatg garaagtatg gaaatcatct gaaaggttga .
agettggcae gtgaageeat teatgaetit gtaaggeagt tttgetgaag geeagttetg
                                                                     480
ccctgggagg gacggaggtg aatcctcctg agtacctgtg gttttcttac ttcctgctga
                                                                     540
atttacctaa gtgcctgttg tttgcttgct gtggaggctt tctggtattt catttcaggt
                                                                     600
                                                                     660
gcagatgcct tcactttccc accraaaaaa ccccmaccaa acctaagacc ttactgcaac
                                                                     720
taagtytncc aagtactttt taacccaatg ggatgaacag cctgtggtct gctcagatca
                                                                     780
ccctgagtgc gtgtgagaag gcmtnggctt tgccaggaaa tccaggaagg cagggccggg
ctgtgttgga agctggctta gctggtgggg cagccttatt tcaattaaaa gggcattgac
                                                                     840
tgggagcagc agtcctggag tttgttgcat ttcctattgc cctcaaaatg agaaaccagg
                                                                     900
                                                                     960
aaaatagcag attggagcct tcgagaaggc agtaaatggc tgtttttatt gacaaaagga
                                                                    1020
aaacatttta ctgccatctc actgatggca tctcactgac ttaaaatgaa ggcangttgt
agtaaaaaaa aaagtetaca titticeace gecaegitet tatateetgt tigteageea
                                                                    1080
```

ctgctcanaa ataggttggg	gggcatgttg tg	tcttgcggan	tanaggcgct	ctccttccct	cgttttccct	1140 1152
<210> 68						
<211> 2483					•	
<212> DNA						
<213> Homo	sapiens				•	
<400> 68						
agcaggcggt	gcgctggggg	cgggagcagc	gcgkagcccg	gctcggccac	accgatcgcc	60
cgccgccatg	ggctcctcgc	aaagcgtcga	gateceggge	gggggcaccg	agggctacca	120
cgttctgcgg	gtacaagaaa	attccccagg	acacagagct	ggtttggagc	ctttctttga	180
ttttattgtt	tctattaatg	gttcaagatt	aaataaagac	aatgacactc	ttaaggatct	240
gctgaaasca	aacgttgaaa	agcctgtaaa	gatgcttatc	tatagcagca	aaacattgga	, 300 360
actgcgagag	acctcagtca	caccaagtaa	cctgtggggc	ggccagggct	tattgggagt	420
gagcattcgt	ttctgcagct	ttgatggggc	aaatgaaaat	gtttggcatg	tgctggaggt	480
ggaatcaaat	tctcctgcag	cactggcagg	tcttagacca	cacagigati	acacaaccyy	540
agcagataca	gtcatgaatg	agtctgaaga	tctattcagc	cccaccyaaa	aagtgattat	600
aaaaccattg	aaactgtatg	tgtacaacac	agacactgat	tataggatta	gatatogtta	660
tacaccaaat	tctgcatggg	grggagaagg	cagectagga	aaaatttctc	ttccaggaca	720
tttgcatcga	atacctácac	geccatttga	ggaaggaaag	acadadatcc	agctgtcctc	780
aatggctggt	acacctatta ccgtctttgt	caccaccac	aactacagga	attgaacaga	atctgactgg	840
agttaateee	ageteaacte	caccaccagy	cartagtatt	ctcagtacag	gtgtaccaac	900
acticciati	ttgccaccac	aactaaacca	atcattact	tctataccac	caatgaatcc	960
agraccycra	ttaccaggtc	tgatgccttt	accadcadda	ctgcccaacc	tccccaacct	1020
caacctcaac	ctcccagcac	cacacatcat	gccaggggtt	ggcttaccag	aacttgtaaa	1080
cccagateta	ccacctcttc	cttccatgcc	tccccgaaac	ttacctggca	ttgcacctct	1140
cccctacca	tccgagttcc	tcccqtcatt	ccccttggtt	ccagagagct	cttctgcagc	1200
aagctcagga	gagctgctgt	cttccctccc	gcccaccagc	aacgcaccct	ctgaccctgc	1260
cacaactact	gcaaaggcag	acgctgcctc	ctcactcact	gtggatgtga	cgcccccac	1320
tgccaaggcc	cccaccaccg	ttgaggacag	agtcggcgac	tccaccccag	tcagcgagaa	1380
gcctgtttct	gcggctgtgg	atgccaatgc	ttctgagtca	ccttaacttt	gaaccattct	1440
ttggaattgg	cgtggtatat	ttaaccacgg	gagcgtgtct	ggaaacgcaa	actatcatta	1500
atttcatact	agtttgtacc	gtatctgtag	gcatcctgta	aataattcca	aggggaaaac	1560
taaacgagga	cgtgggttgt	atcctgccag	gttgagtggg	gctcacacgc	tagggtgaga	1620
tgtcagaaag	cgcttgtatt	ttaaacaacc	aaaaagaatt	gtaagggtgg	cttgctgcca	1680
ggcttgcact	gccgttcctg	ggggtgtgca	tcttcgggaa	aggtggtggc	ggggcgtcca	1740
ctaggtttçc	tgtcccctgc	tgctccttcc	gtaagaaaat	gaaatattct	atgcctaata	1800
ctcacacgca	acatttcttg	tactttgtaa	gtcgtttgcg	agaatgcaga	ccacctcact	1860 1920
aaactgtaaa	cggtaaagag	atttttactt	ttggtctccg	tgagtcgcat	ctctactaag	1920
gtttacacag	gaattccacc	tgaagacttg	tgttaaagtt	ctacagegeg	cactgitaac	2040
tgaacgtctt	tttcttcagc	ctatacgcgg	atcettgttt	tgagetetea	gaatcactca	2100
gacaacattt	tgtaactgct	gctgttgctt	tctacataca	ccttataaag	cottotacte	2160
aaagaaataa	ggtgccacag	ttttaaacca	gaaggtggca	acactaatt	tactttttt	
ttatagctat	actgggaaag	catagataca	gcaacaaagt	tacacttact	actotocact	2280
cttgtgttac	atctaaatta	caacccttaa	tatttaaatt	ttcacctcct	atatttactt	
atgtcttatt	actctccagt	atgreacgea	tagaattaat	ttactgaatg	aaattaaato	2400
tctcccattt	ttaagagatg tgtttttgaa	ytaayttaac	299aallyal	aaaaaaaaa	aaaaaaaaaa	2460
						2483
aaaaaaaaaa	aaaaaaaaa	aaa	•			

<210> 69 <211> 536<212> DNA<213> Homo sapiens

```
<400> 69
gagaaatgga getttgttag ataaaaattt tttcaaegca aacagteatt ttecagtgaa
aggagagcgt atccgccgta ggatggactt agatcgtgta aaagctgagg ccacegagga
                                                                      120
tataacctcc ggggtccttt gcctcctttt ccttagactc cctccaaact cgtgtatctt
                                                                      180
teetteagea gtactggget ecaegegaae etagteettt gtetttaeee tattacettt
                                                                      240
cataacatcc tagttgaaaa gtarttattc aaccgcgttt gaaaatgaga acaggttcac
                                                                      300
agargetagg ttacttgcga aggtegttea attagtaace agtaaegeea ggaetgeeag
                                                                      360
tttcttgctt ccgaattctc atggtagctt tcaccargct ccccgtcmaa tgctaacgtc
                                                                      420
aactactgaa ctagattagc aaaaaggtct tttaacagaa ttcctggttt tcagagagag
                                                                      480
                                                                      536
tttctttcat gaagegeece atttctacag aggaaaataa actecaagea gecagt
<210> 70
<211> 574
<212> DNA
<213> Homo sapiens
<400> 70
                                                                       60
ggggggggaa ttcccctggc acgaggctga cgcatgcgca tagctaaccg cacccggttc
agetegeett tettggeeag aggegeeggt tggaeteaeg ggeggggeat gatggtggtg
                                                                      120
                                                                      180
ggtacgggca cctcgctggc gctctcctcc ctcctgtccc tgctgctctt tgctgggatg
                                                                      240
cagatgtaca gccgtcaget ggcctccace gagtggctca ccatccaggg cggcctgctt
ggttcgggtc tcttcgtgtt ctcgctcact gccttcaata atctggagaa tcttgtgttt
                                                                      300
ggcaaaggat tccaagcaaa gatcttccct gagattctcc tgtgcctcct gttggctctc
                                                                      360
tttgcatctg gcctcatcca ccgagtctgt gtcaccacct gcttcatctt ctccatggtt
                                                                      420
ggtctgtact acatcaacaa gatctcctcc accctgtacc aggcagcagc tccagtcctc
                                                                      480
acaccageca aggteacagg caagageaag aagagaaact gaccetgaat gtteaataaa
                                                                      540
                                                                      574
gttgattctt tgtaaaaaaa aaaaaaaaa aaaa
<210> 71
<211> 932
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (884)
<223> n equals a,t,g, or c
<400> 71
tcatcatata caaagttttt cgtcacactg cagggttgaa accagaagtt agttgctttg
agaacataag gtottgtgca agaggagooc togotottot gttoottoto ggcaccacct
                                                                      120
ggatctttgg ggttctccat gttgtgcacg catcagtggt tacagcttac ctcttcacag
                                                                      180
tcagcaatgc tttccagggg atgttcattt ttttattcct gtgtgtttta tctagaaaga
                                                                      240
ttcaagaaga atattacaga ttgttcaaaa atgtcccctg ttgttttgga tgtttaaggt
                                                                      300
                                                                      360
aaacatagag aatggtggat aattacaact gcacaaaaat aaaaattcca agctgtggat
gaccaatgta taaaaatgac tcatcaaatt atccaattat taactactag acaaaaagta
                                                                      420
                                                                      480
ttttaaatca gtttttctgt ttatgctata ggaactgtag ataataaggt aaaattatgt
atcatataga tatactatgt ttttctatgt gaaatagttc tgtcaaaaat agtattgcag
                                                                      540
                                                                      6 0.0
atatttggaa agtaattggt ttctcaggag tgatatcact gcacccaagg aaagattttc
                                                                      660
tttctaacac gagaagtata tgaatgtcct gaaggaaacc actggcttga tatttctgtg
                                                                      720
actogtgttg cotttgaaac tagtccccta ccacctcggt aatgagetee attacagaaa
gtggaacata agagaatgaa ggggcagaat atcaaacagt gaaaagggaa tgataagatg
                                                                      780
                                                                       840
tattttgaat gaactgtttt ttctgtagac tagctgagaa attgttgaca taaaataaag
                                                                      900
932
ccaaatcgcc gcatagtgat cgtaaacaat ct
```

```
<210> 72
<211> 996
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (584)
<223> n equals a,t,g, or c
<400> 72
                                                                       60
cgcctggcac catgaggacg cctgggcctc tgcctgtgct gctgctgctc ctggcgggag
ccccgccgc gcggcccact cccccgacct gctactcccg catgcgggcc ctgagccagg
                                                                      120
agatcacccg cgacttcaac ctcctgcagg tctcggagcc ctcggagcca tgtgtgagat
                                                                      180
acctgcccag gctgtacctg gacatacaca attactgtgt gctggacaag ctgcgggact
                                                                      240
                                                                      300
ttgtggcctc gccccgtgt tggaaagtgg cccaggtaga ttccttgaag gacaaagcac
ggaagctgta caccatcatg aactcgttct gcaggagaga tttggtattc ctgttggatg
                                                                      360
actgcaatgc cttggaatac ccaatcccag tgactacggt cctgccagat cgtcagcgct
                                                                      420
aagggaactg agaccagaga aagaacccaa gagaactaaa gttatgtcag ctacccagac
                                                                      480
ttaatgggcc agagccatga ccctcacagg tcttgtgtta gttgtatctg aaactgttat.
                                                                      540
gtatctctct accttctgga aaacagggct ggtattccta cccnggaacc tcctttgagc
                                                                      600
                                                                      660
atagagttag caaccatgct tctcattccc ttgactcatg tcttgccagg atggttagat
acacagcatg ttgatttggt cacctaaaaa gaagaaaagg actaacaagc ttcactttta
                                                                      720
tgaacaacta ttttgagaac atgcacaata gtatgttttt attactggtt taatggagta
                                                                      780
atggtacttt tattctttct tgatagaaac ctgcttacat ttaaccaagc ttctattatg
                                                                      840
cctttttcta acacagactt tcttcactgt ctttcattta aaaagaaatt aatgctctta
                                                                      900
agatatatat tttaygtagt gctgacagga cccactcttt cattgaaagg tgatgaaaat
                                                                      960
                                                                      996
caaataaaga atctcttcac atgaraaaaa aaaaaa
<210> 73
<211> 785
<212> DNA
<213> Homo sapiens
<400> 73
ggcacgaggg gctttgcgta cacaatagct gctaggagta cccaaagcct gartaCarcc
                                                                       60
tgctggtgtc atggccacgt gtgagcaggc cagcgtcama cggctcgctg tgacccgtcc
                                                                      120
cgragactga aatgggeetg ggtettetee tkgteetgtg atwaaagtee tetettgaaa
                                                                      180
                                                                      240
gtggagagca aaggcacaca gaggtgegeg etcacaagaa tteeteeegg tgaetgggta
atcaatgtta ctgctgtttc ctttgcagga aagaccacag caagattctt tcattcgtct
                                                                      300
cctcctagcc tgggggacca ggctcgaact gaccctggac atcaaaggag ggattatgtg
                                                                      360
gctgctaaag ccatcggccc acagccctgt tcacrtcttg gtgcttctct ttcccagagg
                                                                      420
                                                                      480
ctggtcccag ccaggcacac acaaaaggca gattctcgta aacscagcct ccctccctgg
                                                                      540
aggetgeete etgeeetgga tetggagtgg agetgetetg agattttgag ttettetgea
                                                                      600
gagatgatta aatatatcca agagacattg gaaaacctgc tgaacatttt acattggtct
gctcagcaca tggctggatg cggatatttc tataattcca gaaagtcaca cagctcctct
                                                                      660
                                                                      720
gtatgagacc agtgggcgcc atttaaaaaga acaggatgag aatctaagat atattattaa
                                                                      780
785
aaaaa
```

<210> 74

<211> 1069

<212> DNA

<213> Homo sapiens

```
<220>
<221> SITE
<222> (20)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (92)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (886)
<223> n equals a,t,g, or c
<400> 74
tecteaceat teceetaggn caggteeetg caggteeeac actteteeca ggteeetaaa
                                                                      60
cttgggtcgg tcctttccct ggagtagctg gntcctccag tcgaggtccc tgttcagtcg
                                                                     120
                                                                     180
gttcttaggc tcctgcacat gaaggtgtgt gcctgtggtg tgtgggctgc tctaggagca
gatacaggct ggtatagagg atgcagaaag gtagggcagt atgtttaagt ccagacttgg
                                                                     240
cacatggcta gggatactgc tcactagctg tggaggtcct caggagtgga gagaatgagt
                                                                     3.00
                                                                     360
aggagggcag aagcttccat ttttgtcctt cctaagaccc tgttatttgt gttatttcct
                                                                     420
gcctttccga gtcctgcagt gggctgccct gtaccctgaa cctcatgagc ctctaaggga
                                                                     480
aaggaggaac aattaggacg tggcaatgag acctggcagg gcagartaca agcccagcac
                                                                     540
cagtgtccca gccttactgg gtccttaccc tgggccaaac agggagggct gatacctcct
                                                                     600
tgctcttcct agatgcccac ctcctacaat ctcagcccac aagtcctctc caccctaggg
                                                                     660
ggcttgctgc atggcaataa ctcataatct gatttggagg tttgcccttt acaggggcag
                                                                     720
attitctgct cagticaaca atgaaatgaa gaggaactcc ctcttictac agctcactic
                                                                     780
tatcagagge ccaggtgeet cagagecaca ttgagttget ttttctggga tgaggaagta
gggttaaact ccccagtttc ctgagggagg ctcctgacag gtgccctttg tcagacccta
                                                                     840
                                                                     900
ccacagootg gataggcago cacattggto otogocottg otoggnacto ogtggtggto
ctgcccttct ccctgcatgc ctgtgggtct gctctggtgt`gtgaaggtcg gtgggttaac
                                                                     960
tgtgtgccta ctgaacctgg caaataaaca tcaccctgca aagccaaaaa aaaaaaaaa
                                                                    1020
                                                                    1069
<210> 75
<211> 831
<212> DNA
<213> Homo sapiens
<400> 75
ggacattaga tcactgtgga cctaaaacaa acaaacaact ataaggaaaa tggcattaga
                                                                      60
aatggtctgg ggatcagttt atcactgcag ttgttacatc accccatggt ctaaaataca
                                                                     120
gagetttagt etgtetetgt tteagtteat tttacaggag gtgaacatea eactteeaga
                                                                     180
aaactctgtc tggtatgaaa ggtataaatt tgatattcct gtctttcact tgaatggcca
                                                                     240
gtttctgatg atgcatcgag taaacacctc aaaacttgaa aaacagctcc tgaaacttga
                                                                     300
                                                                     360
gcagcaaagt actggargct gactgatgcc ctcatgattt tccaccctct cttcccataa
                                                                     420
agcatcttcc taaggaaatg amcatggcct gatactcatt ttgtcacttg tacagagccc
                                                                     480
taaggatgtt ctgaattcag tggtgccaaa taaatgttga cattcccctt ttggttgatg
                                                                     540
gaagtatcag tgtgggaact gtttgcttaa tggcatttta taaaataaka akakcatatt
                                                                     600
agcagggagg gagatgatgg agggagggag aagtccattt gtcttattta tcctttttgt
                                                                     660
attaatagag aagcacttca cagtcactgg caatgccatt tataggaaga aggttctgca
                                                                     720
ttcctgctgc tcccggaggg cttaactttt taatgaaaga ataaatgctc ttccactcag
                                                                     780
tagataaagt gaaatgtgaa ttgttaataa ctgtgcacgg tcaataaagc gatgttttaa
                                                                     831
```

```
<210> 76
<211> 590
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (27)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (30)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (35)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (76)
<223> n equals a,t,g, or c
<400> 76
tatatataga engttaatag tegtgantgn tgtgnacgaa cattaaegga agtagcatgt
                                                                        120
agccagtcga ataacntata aggacaaagt ggagtccacg cgtgcggccg tctagactag
                                                                        180
tggatceccc ggctgcagga ttcggcacga gctgccaggt gaggagcaga gagactgttc
ccttgggtgg agaggtgtgg gcatgagagc cacccattgc caagcagcaa gaatgttcgt
                                                                        240
gettttttee ettecaaaat atgeaggget eaggeteeea atteegggee tgtetgettt
                                                                        300
                                                                        360
gettgtgttt eteetgteee tgtteteeeg gagggeeeag gtggaaetea egacagggag
                                                                         420
ggagacgett cecaaaaace tgeagggeta ttteecagaa tttggtttte aagtacaaaa
                                                                        480
ctttttgtcc tgtaagatat atgcagcctc acagaagcag cctctgcctc cactttacca
gctacgtttt tatcttaagc acatggggct cccttagaac ttactccact gatttaaaaa
                                                                         540
                                                                         590
aaaaaaaaa aaactcgagg gggggcccgg tacccattcg ccctaaaagt
<210> 77
<211> 1274
<212> DNA
<213> Homo sapiens
<400> 77
                                                                          60
gagccaccac acctggcctg gaaggaacct cttaaaatca gtttaegtct tgtattttgt
tctgtgatgg aggacactgg agagagttgc tattccagtc aatcatgtcg agtcactgga
                                                                         120
                                                                        180
ctctgaaaat cctattggtt cctttatttt atttgagttt agagttccct tctgggtttg
                                                                         240
tattatgtct ggcaaatgac ctgggttatc acttttcctc cagggttaga tcatagatct
                                                                        300
tggaaactcc ttagagagca ttttgctcct accaaggatc agatactgga gccccacata
                                                                        360
atagatttca tttcactcta gcctacatag agctttctgt tgctgtctct tgccatgcac
                                                                         420
ttgtgcggtg attacacact tgacagtacc aggagacaaa tgacttacag atcccccgac
                                                                        480
atgeetette eeettggeaa geteagttge eetgatagta geatgtttet gtttetgatg
```

```
540
tacctttttt ctcttcttct ttgcatcagc caattcccag aatttcccca ggcaatttgt
agaggacctt tttggggtcc tatatgagcc atgtcctcaa agcttttaaa cctccttgct
                                                                        600
ctcctacaat attcagtaca tgaccactgt catcctagaa ggcttctgaa aagaggggca
                                                                        660
                                                                        720
agagecacte tgegecacaa aggttggggt ceatettete teegaggttg tgaaagtttt
                                                                        780
caaattgtac taataggstg gggccctgac ttggctgtgg gctttgggag gggtaagctg
ctttctagat ctctcccagt gaggcatgga ggtgtttctg aattttgtct acctcacagg
                                                                        840
gatgttgtga ggcttgaaaa ggtcaaaaaa tgatggcccc ttgagctctt.tgtaagaaag
                                                                        900
gtagatgaaa tatcggatgt aatctgaaaa aaagataaaa tgtgacttcc cctgctctgt
                                                                        960
geageagteg ggetggatge tetgtggeet ttettgggte eteatgeeae eccaeagete
                                                                       1020
ccaggaacct tgaagccaat ctgggggact ttcagatgtt tgacaaagag gtaccaggca
                                                                       1080
aacttcctgc tacacatgcc ctgaatgaat tgctaaattt caaaggaaat ggaccctgct
                                                                       1140
tttaaggatg tacaaaagta tgtctgcatc gatgtctgta ctgtaaattt ctaatttatc
                                                                       1200
                                                                       1260
actgtacaaa gaaaacccct tgctatttaa ttttgtatta aaggaaaata aagttttgtt
                                                                       1274
tgttaaaaaa aaaa
<210> 78
<211> 1133
<212> DNA
<213> Homo sapiens
<400> 78
                                                                         60
aggatttttc cttgttcaac caaaatctga gcattctttc tatgttgaaa acactgaaaa
actaatttwa gttaatgaac tagaaagaat attgattttw aagaaacaga aaaatactac
                                                                        120
                                                                        180
ttattttcct tctcaaataa cgtttctttc aaaaacttct ggctgaagta taacatgctg
gtagttaaca taaatcttgt ctttctcttg ttctttatct ttctttgtta tttagatgct
                                                                        240 .
tgtataaatg tcttttgttt ttattaagtg cctaattgac agagcttaat ttgaagaagt
                                                                        300
gccctaattt attgaccact taagaattgc ctttattggg gtattttatt tgttcctgcg
                                                                        360
tctttttgat gttgttcagt ctactcatcc ctgtgagtat gtgtggggga cagctgatag
                                                                        420
aagggaggag agtgtgtcta tgctcaggat tgccctttag ccactcagcc agagatccac
                                                                        480
agggagcaac aaggacagtt tcacatgctt agactttctt ggaagaaaca gtgaggagga
                                                                        540
gtaagtcgtg agtagtgtca agctggatgt agaattgtcc taaggcagtt gaccccacct
                                                                        600
                                                                        660
tocaacatgt titcactita tittgcccctc cctacatitg ggttaggttc cattiggatt
                                                                        720
tgcagcaata atgactttat ttctctcttg gtcaggattt ggcacataaa atccttttat
                                                                        780
tatagaacta gctattttag ttacatagta atgtaactaa tggagagatt tatagagaat
tttgkttttg ctgtcatata tgtccatttt ggagacagat atgatagaac tagaaattaa
                                                                        840
                                                                        900
gttgcatttc tgcaagtgcc atttgaatga acttcaagta tcttcttaat tattaaattt
tctgatgaag gcattgtaac aaatatatag tattattaaa tctaattaat atttggaaat
                                                                        960
attaataaat aggtatttta tttactgtaa aaagtcaaac ttcattatgt agataaatct
                                                                       1020
                                                                       1080
tattcttttc attctttccc ctgtttacat cctttttaca aagcttagtc accaattaaa
                                                                       1133
gettteetat caaaaaaaaa aaaaaaaaa aetegagaet agttetetet eet
<210> 79
<211> 661
<212> DNA
<213> Homo sapiens
<400> 79
                                                                         60
gaattcggca cgaggggaaa aggatgctga acgagagcag aaagcctctt tcctttgctt
cacgcctttc cagtctttat tttaaactcg ggttcccttt ctgtggtcgc agcaaccttt
                                                                        120
actocacctg cactgotget cotggggget coccaggeet coctetgeet ttetacccag
                                                                        180
tggctgacgg gatgcctgtc ttgcctggac gcaccactgc tctcctgtcc ctcaccttgg
                                                                        240
                                                                        300
cttttgctgt gccctgctct ggggttgaag ctggcccatg tgtcccccgg agtcatggct
                                                                        360
gctcctcctg ggaggcctct gtgtgcgtca cgtcttccac acctgggggc agctggcgag
                                                                        420
cccgtgctct gttcccctcg gctgcttggc acagagytgc agcctgggay tctccgtgga
cccagactgg ggattttgcc aggggggcga tgggaggagc aggtgctttg cctggcggct
                                                                        480
                                                                        540
gtgtctgcat ttctggacgc cccagagcac agaagttgcc ggcactttga ggtcttcctc
```

```
600
ggcatgtgcc agattacatg agtgacggct gggaatatgt tttcttttt gtaatggagg
660
                                                                      661
<210> 80
<211> 1378
<212> DNA
<213> Homo sapiens
<400> 80
                                                                       60
agacgtgaaa catgtgaaca ctcaagtgaa gcaaaagcct tccatgatta cccttttatg
tcacctcggt accctggagg tccaaggccc ccattgagga tacctaatca ggcacttgga
                                                                      180
ggtgtcccag gaagtcagcc attactcccc agtggaatgg atccaactcg acaacaagga
catccaaata tgggtgggcc aatgcagaga atgactcctc caagaggaat ggtgccctta
                                                                      240
ggaccacaga actatggagg tgcaatgaga cccccactga atgctttagg tggccctgga
                                                                      300
                                                                      360
atgcctggaa tgaacatggg tccaggtggt ggtagacctt ggccaaaccc aacaaatgcc
aattcaatac catactcctc agcatctcct gggaattatg taggtcctcc aggaggtgga
                                                                      420
                                                                      480
gggccaccag gaacacccat catgcctagt ccagcagatt caaccaactc tggtgataac
                                                                      540
atgtatactt taatgaatgc agtacctcct ggacctaaca gacctaattt tccaatgggy
cctgggtcag atggtcccat gggtggatta ggaggaatgg agtcacatca catgaatggc
                                                                     600
totttaggot caggagatat ggacagtatt tocaagaatt otoccaataa tatgagootg
                                                                      720
agtaatcaac cgggcactcc aagggatgat ggcgaaatgg ggggaaattt cttaaatcct
tttcagagtg agagttactc ccctagcatg acaatgagcg tgtgatccat taccaagtct
                                                                      780
cctcatgaaa accacagtga gtcagccctt cacagaacta ctacggaaga aaattattca
                                                                      840
tcacagigta cagitaaaca aaggaatete agteacacea aaccaacett titatiteet
                                                                      900
gctctctccc ctcttttgtg aagaaagcgg gtccaaatgt gattcaaaca actgtacgga
                                                                      960
                                                                     1020
gtggcatatt agaattgccc taaactgaac tgcaaataat tatgtgtgta tgtatatgtg
tgggaaagag aatgtactgt atatgtgtat gttatacaga catatacaca tacatacatt
                                                                     1080
gacccacagg acattgtaaa atattatcac atgacatctt aagtagaaat aagtagggac
                                                                     1140
ttttattcca tcctttttt cacgtttaca ttttaattat tacaagttgc tcctgccccc
                                                                     1200
tccctgaact attttgtgct gtgtatatca ctgctttata taagttattt tttaaggtga
                                                                     1260
                                                                     1320
actcagatgt tatggttttg taaatgtctg caatcatgga taggaataaa atcgcttatt
                                                                     1378
tgagagcttt cattaaaaaa aaaaaaaaaa aacttcgagg gggggcccgg tacccaat
<210> 81
<211> 1440
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (38)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (41)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1128)
<223> n equals a,t,g, or c
<220>
<221> SITE
```

```
<222> (1129)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1440)
<223> n equals a,t,g, or c
<400> 81
                                                                       60
actttgtcca aatgtgtctg tcacatgtag tcagctgnag naatttaaaa tgaattgcca
agtgaagagt ctgtggatta attggccgtt aattaacagg ctttatcaat gtgtcctcaa
                                                                      120
gggagaggcc caaccctaat taaggagcta aacttcctga gtgaggggct gtgaggatgg
                                                                      180
                                                                      240
aggtggagga ggcatctggg gcgggtggtg gccgggccag cagatggcgc ctccctggct
gagctgcccg caccgccagt tccctcattt ccactcagga aggcagagaa ggcagagtga
                                                                      300
totoctcaag gaagagotto cocagootto gggagcagot ggcagggogt cogggaataa
                                                                      360
                                                                      420
gccctacacg ccgccgcctg cctccaactc actaaccctg cgcctcttgt ctttcagatt
caacgcgttc aacagaagcc atccccagcc cagcttaaat tataaagata gacaataact
                                                                      480
ctgttccaat ctgcgtggtg cttctttagt aaatactgta cagattttac catggagaac
                                                                      540
                                                                      600
ttttttttta gtttttacct tttcttaatt acccttattc cgaatggacg aacactttct
                                                                      660
accactgctg accattgtaa aataccgtgt atataaatcc cattgaaata atgccctgga
                                                                      720
atagaacatc tcaaatgctg cttaattaca gactcaggtc gattacttgt atttcatgta
                                                                      780
atgttcctcc aagttagaca tctggtgcaa gaccaaccgg gagaccatgg aattgtcaaa
agtacaaact gacagtgtgt atatttaatt taaagactta tttaaaaaact cacaagctct
                                                                      840
                                                                      900
cacctagact ttggagagca gtctgttttc tgtaatgtct gatactagaa actaatttgc
ttattttagt tgtattcaag atttgaagat gtattttata gacaagttct gtttttgaac
                                                                      960
                                                                     1020
tttgtggaac tgttccaatc aatcaatttc ccagttatga tgagtattta cattatgaat
                                                                     1080
gtataaccca gacatgattt gtaaagccga cagtatgttt ctattacaca acactttttg
atacagegte tettgtette actgatactg gagteteegt tgtetgenng gteeettega
                                                                     1140
1200
actgtgatac acttataatt cactggtcct gcatcaggag atggagtggg gaaaactgta
                                                                     1260
tttaatacag tttgtatctg aataatctgt atggtttata cagtttgtgt tgttcagaga
                                                                     1320
                                                                     1380
tgtttaaagt ttgatctttg tttttctaaa gattaaaaaa gcacttgccc cactgtaaat
                                                                     1440
atacagcatg taaaatttct rtagtatata aatggcagca aatcacaaaa aaaaaaaaan
<210> 82
<211> 1381
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1379)
<223> n equals a,t,g, or c
<400> 82
cccgggctgc aggaattcgk yacgaggcca gcagttgctc ccagttcagg aggtgctcct
gtaccctggc cacagcccaa tcctgccact gctgacatct ggggagactt taccaaatct
                                                                      180
acaggatcaa cttccagcca gacccagcca ggcacaggct gggtccagtt ctgacctgag
cacggttttt cctcatgtga cttctgggaa ggcgctccct catctgggcc aaaggaagga
                                                                      240
                                                                      300
ggacgaagee efecteaget ggeetgtgtt tggggeatga ateteteete teeteettgt
                                                                      360
ctggctctgt tgacaaaccg ggcatgtttg gcagtaaatt ggcaccgtgt cacactgttt
                                                                      420
cctgggattc aagtatgcaa ccagaacaca ggagaagaaa agctccagga tccctgtccc
                                                                      480
catctgtcct cttgatgtga gagagactct gagacttctt ccatcgcaat gacctgtatt
                                                                      540
aaacacaagc cccccaagca aaagaagagg ttgagtttgc tgccaggatt cagatcagcc
cttcccaggg tctgcaggtg tcacatgatc acagttcagc gggaggcttt ccgtacccac
                                                                      600
actggctgta gcacttcagt ccatctgccc tccagaggag ggtttcttcc tgatttttag
                                                                      660
                                                                      720
caggittaga ggcigcagci tgagciacaa tcaggaggga aattggaagg attagcagci
```

```
780
tttaaaaatg tttaaatatt ttgctttgct aatgtgctga tccgcactaa ctcatctttg
caaaaggaac tgctccctcg gcgtgcccca gctggggcct ctgaagggat tcctcactgt
                                                                      840
                                                                      900
gggcagctgc cctgagcttc aggcagcagt gttcatctct ggccagttgt ctggtttcca
                                                                      960
tgtattctag gccaggtagg caacacagag ccaaggcggg tgctggaagc cagacggaac
agtgttgggg caggaaggtg gatgctgttg tcatggaget gtgggagttg gcactctgte
                                                                     1020
tgctggtggc cctctcggct cacatgttca cagtgcagct cctggcagac ttgggttttc
                                                                     1080
totttggtgg tttctaaagt goottatotg caaacaactt ottttotoot toaggaactg
                                                                     1140
                                                                     1200
tgaatggcta gaagaaggag ctcagtaaac tagaagtcca gggttgcttg gtttactggt
                                                                     1260
ttataagaaa totgaaagoa oototgacat toottttatt aactoacoto toagttgaaa
                                                                     1320
gatttcttct ttgaaaggtc aagaccgtga actgaaaaaa gtgttggcct ttttgcggga
                                                                     1380
1381
<210> 83
<211> 1706
<212> DNA
<213> Homo sapiens
<400> 83
actgcaccac tgcccaggtc tcccggctgg atgaagacgt ggtccatgag gaagctggct
                                                                       60
agctcagact ggagagtagc ttcaggaaaa aagacaagtg gcctaaggaa atcacggccc
                                                                      120
ccaactatca tetgaggget aaagatgaga agtagateae ttaataagae aaaageetgt
                                                                      180
agggggaaaa gaaaggatgt ttaaaaggac agaatgtttc ccaaggtaga aatgacactg
                                                                      240
tcaatttctc cttggaatgg gggcagggat actcgccttg ttgctcccac ttgagtcagt
                                                                      300
actcacctgc teetggatet cagtatecae atetgagagg caactetgge agagtteaca
                                                                      360
                                                                      420
gaaggccacc attctgtccc tcaaactcga cagctgcttc tgtgggcaca gtggcttgaa
                                                                      480
ggggaagaat gaagacacag acteetetgt teccattate ecatetaaga eccacactea
                                                                      540
cctggggaag catctgattt agaaatgtgg gttagtgtcc agagaatgga aaaatagaca
                                                                      600
agagtcaagg ctggcaggat aacctgtaac aacaaagggt ttgaaaaatg aggtttgggt
                                                                      660
taggagaggg agagacagat agccagaaac acaccagtga agaggagaga aaatgagtaa
                                                                      720
agggagaget aatteettt eeagtggaaa atgagtgata teetggaeat tetteagagg
catctacacg aagtagaaat gtcaccgctc cctaatttac tctacgtctt ctagaatccc
                                                                      780
tcaatattat ccttggcttc caggaaatcc aagaagaccc tggaagtaga gtccaccttc
                                                                      840
taagagagga atgtaagagg tgacccccac ccacctgatc ttcctcgctt tgtccactcc
                                                                      900
acgcactgag acttgacaca cctagtggcc acctagaacg taggtcctta aaatytagcc
                                                                      960
ccccagccc caacccatct ctagcctgtc cactcacctg gtgaggaacy tytectgtgt
                                                                    .1020
ccacagcytt ctgcaggagt tggcaacatg gctcatagag ctcccagcga gtcaggtcat
gagtgctttg ggggagaaag gggaatgtta tactggaaaa gaacagaggg aaccaactcc
                                                                     1200
acagacacca gtaaaaacgg gatggggaag aggaggaaag ccactcactt gtagaaggca
                                                                     1260
gagaggcgtt tcagagtggc tgccagatta tatacctcat cctcatctag gaaggacgac
tgagaaggaa agaagatcca caatagcatt tcccccagaa ctcatcagtc cacatccccc
                                                                     1320
gtcttgcagc ccctcccacc cttgtttggg gtgtcccatt gtccagcccc agctcctacc
                                                                     1380
tgtaacagct cttcaagctc ctgctggaar cggtcagtca gcaaatctac tagctggctg
                                                                     1440
cgggcaaagt ccgcccggct gaagaaagtg aattcgggat tacagagcag gtaagagcat
                                                                     1500
gegeeceage eteaageace getggetetg catgetteae caccacctee tggagttget
                                                                     1560
gcaggaacag ctccaggtgc tgagaagaaa aggcagaaga tggtgtgctg tggggatggg
                                                                     1620
                                                                     1680
aggaggacac tettetggeg ggaagtggaa eggggttaaa agcattaaac tteaaggata
                                                                     1706
agatgcctaa raaaaaaaaa aaaaaa
<210> 84
<211> 573
<212> DNA
<213> Homo sapiens
<400> 84
                                                                       60
gaatteggea egagettggt ageettagaa etgeatgage tgetttaeea etgggaaaca
```

```
120
cqaqcacagc ctagcttgat tttgtatgtg gtatcagatc taaggtggat ggaattcagg
                                                                      180
acttcctgtc tactctttga ttttgtttta tttttagaaa tgttttattt tgttttattc
                                                                      240
atttattcat cttcagagac atggtctggc tctgttgccc aggatggagt gcatggtgtg
atcatagged actgeagtgt tgageteeeg ggeteaggeg atceteetge eteagetyee
                                                                      300
ttagtagctg ggactatagg cacatgccct accatgcctg gctttgtcta ctttttgaat
                                                                      360
                                                                      420
gatgtcycaa actagaaggt ctattaattt aaaaaattaa ggatagcatg ccataattaa
aaataataac agtgggaaaa ggcaccttcc aatgattcag acatcaactt gtgatttaaa
                                                                      480
540
                                                                      573
aaaaaaaaa aaaaactcga ggggggcccg gta
<210> 85
<211> 684
<212> DNA
<213> Homo sapiens
<400> 85
ctctttggct gtgtctacct ccttcatctg ctgcgccgac ataagcaccg ccctgcccct
                                                                       60
                                                                      120
aggetecage egtecegeae cagececeag geacegagag caegageatg ggeaceaage
                                                                      180
caggeeteec aggetgetet yeacgteeet tatgecacta teaacaccag etgeygeeca
                                                                      240
gctactttgg acacagetca eccecatggg gggeegteet ggtgggegte acteeceaee
                                                                      300
cacgctgcac accggcccca gggccctgcc gcctgggcct ccacacccat ccctgcacgt
                                                                      360
ggcagctttg tctctgttga gaatggactc tacgctcagg caggggagar gcctcctcac
                                                                      420
actggtcccg gcctcactct tttccctgac cctcgggggc ccagggccat ggaaggaccc
ttaggagttc gatgagagag accatgaggc cactgggctt tccccctccc aggcctcctg
                                                                      480
                                                                      540
ggtgtcatcc ccttacttta attcttgggc ctccaataag tgtcccatag gtgtctggcc
                                                                      600
aggcccacct gctgcggatg tggtctgtgt gcgtgtgtgg gcacaggtgt gagtgtgtga
gtgacagtta ccccatttca gtcatttcct gctgcaacta agtcagcaac acagtttctc
                                                                      660
                                                                      684
tgaaaaaaa aaaaaaaaaa aaac
<210> 86
<211> 1036
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1020)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1024)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1032)
<223> n equals a,t,g, or c
<400> 86
                                                                       60
tggaggcaga tgcacaggag aaaggttccc gtccgcaccc tctcagacct gaggctgagc
ttgcagtgag ggcttctcct cggcccctcg cccgccccca gagctgccat ccctgctgtt
                                                                      120
                                                                      180
acaagccaga ggagcccgga tgtgaggccc cagatcacct ccagggactt ggggttccca
                                                                      240
totgaaatco tttatttttg taccatgggg tgggccccgg gctgagaagg aagaagcacc
                                                                      300
ctctcccgg cctcctctgt ctgcacccgt ggggctgtga cttactcctg cctccagggg
                                                                      360
cggggcgggg ccccctggga cctcttaagg cccaaggtgg gccccaggac ctytgggcag
```

```
agtggaytgc tcatggcaga tgtgtggcaa tgtctggctg wgtctttccg gcamctgcgt
                                                                    420
                                                                    480
yccctytccc gggytcccct gctgcatggt ggatgtgctc cttcctggcc cggtcacatt
                                                                    540
gcctccttga gccttagtcc agggggtcac tyctcccacc ccacctacct cacagggttg
                                                                    600
ttgtgagggt gcacagagga gcaaagtccc tgaaggccct caggcagtat ataggggccg
                                                                    660
cccaccttca gctgccctgg gatgggaagg acccagcccg acccctgggc ataacactgt
                                                                    720
gtttgcaaat ggagattcag gtattgggga tgcaggttgt ggggagctgg cctggcagag
                                                                    780
taggggtagt tggcttggcc ttctctttgg tgatcccacc cccagccatt tgcattgctg
gcccagcgcc tggcctgggg ggcggggaga ggcagcagaa ggggctgggc aggggcggtg
                                                                    840
gaggactcag gaactgcccg gggagagtgg gtatggcggc tgagccaggg gccctcctgt
                                                                    900
                                                                    960
gtttgacttc ccgggatggg tccttgcttc tcagctgtgt ccgaccccac catgtaataa
1020
                                                                   1036
cccngggggg gncccg
<210> 87
<211> 908
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (805)
<223> n equals a,t,g, or c
<400> 87
                                                                     60
ttaaacaaat ggaatcatgc aatatgtgac cttttgcgtc tggcttattt tatttagcat
                                                                    120
aatgtttttg aggttcatcc aagctgtagc atgtatcagc acctcatttc tttttctggc
tgaatattat tecattatat ggatttaeca caatteattt acetatteat ettttgttte
                                                                    180
                                                                    240
tgctgtctgg ctattgtgaa taatgcttcg ataaacattc atatacaagt ttctatgtgg
ctttatgttt tcatttctct tggctatcta catgggagta gaattctagg tcataatata
                                                                    300
attttatgtt taacttctca aagaattgcc aaaaggtttt tcatagtggc tgcatcattt
                                                                    360
                                                                    420
acattcccac cggcaatgta caaggatttc tatttttcca tatccttgca cttaccaaca
                                                                    480
cttctttttk gtwatwattt tgttttttca ttattgccac cctagtggat gtgaaatggc
                                                                    540
atcttattgt tttgatttgc atttctctaa tgacaaatga tatcatactt tttttatgtg
                                                                    600
cttacggatc aaaggtattt ccttggagaa atgtcccttc aagtcctttg ccatttcaaa
                                                                    660
atttggttat ttgtctttta ttattcagtt ttaagaaatt ctggccaggc gcagtggctc
                                                                    720
acctgtaatc mtagcacttt gggaggccaa ggcgggcaga tcacttgagk tcaggacttc
                                                                    780
gagaccagec tggccaacat ggtgaaaccc catettacta aaaatacaaa aattagetgg
                                                                    840
gcgtggtggc aggtgcatgt aatcntatct actcaggagg ctgaggcagg agaatcgctt
                                                                    900
gaacccagga ggcggaggct gcagtgagcc aagatcacgc cattgcactc tagcctgggt
                                                                    908
gacacaga
<210> 88
<211> 655
<212> DNA
<213> Homo sapiéns
<400> 88
tgcactggtt ccttctcccc agcaaatact gccttcttgt ttttctctga tgtggcaggt
                                                                     60
gactacaaaa tccgccttgg tattcttcaa atgcatatat attcctttct tgtcagctcc
                                                                    120
ctctcttcct agattagaaa actgcctcat tttctgctca ctggatgtgc agtcccagct
                                                                    180
                                                                    240
tgtcttcctc tcctccccc ctgttgcagg tgttctttt ttttttcttc tctccccact
                                                                    300
gggcagcaaa agttgttcca cagtggaaaw ttaggcatcc tcaagtttcy tcccagcttc
                                                                    360
tgctgtgttt tcttagagta aattgccaat ttctgttttt acaggaaatc ctttttaaa
                                                                    420
aatggaatca gtgtggtccc catctactct gcaaaaattg catttttctc tattttcaaa
                                                                    480
```

cttgggcatt gctwgatatg tgaaatgggt ttatgaaaaa taataaaatc ataacgctat

```
ttgtttgact ttcaatttca tgggaatttt tctcagctaa actctaaatg gtgattargc
                                                                          600
 aaaaaaaaa aaaaaaaacy graggggggc ccggtaccaa ttcgccctat aatga
                                                                          655
 <210> 89
 <211> 1102
 <212> DNA
 <213> Homo sapiens
 <400> 89
 ttttttttt accatttaaa ataaaatgaa agtgaccttc tgtttataaa aatctttgtc
                                                                          60
 tgcatctctg cttatttcct tagaagagat tccaagaagc ggtgagtgat ttcacggcag
                                                                         120
 cagagggttg ggacatatta cgggcgcgga tccctcttgg agtgagatga ctctccggag
                                                                         180
 agatttagtc gtcaccctcg cgtgtgaggc tgcgtcacac cccagggatg tgtctatcaa
                                                                         240
 gatggaagat cttttacacg ctcttgattt tgtttgcctt tttttctatt actagtgaga
                                                                         300
 atgaaacttt ttatatgatt attatccatc ataatccaac acaaattact gcttcatgtt
                                                                         360 .
 cttttacttt cctgtgaagg ttttagtgcc ttttaaaaaat tgctatatat taagcttgtt
                                                                         420
 aatactteca tgetgtattt gtggeeatea gttteeeegg geacaggeet geacattttg
                                                                         480
 ccttcacacg ctgggtggtt tttcattttc acttctattt ctcgttcttc tatcgtttta
                                                                         540
 tgttcagacg ggtttctccg tgtagaaagc agtttatgaa gatttacttt cgacagtctt
                                                                         600
 ctctctactt tctacagtga attctctgay gtgtctggga gtwtgggggt ctgggtaaga
                                                                         660
 rtcctcctct caccctattc tctattaçga tccacagcct catgctttat garattggtg
                                                                         720
 gccgggarcg ggggagattt gcggatcccc caagccagac tttatccccc tatccctgcc
                                                                         780
 tetggatece acgtacagge etgggaacte cetgtgggta ggggecaatg gtetegeact
                                                                         840
 ctcacctgta ccccagggct ggcacaggat ggtcaaggag agaggctgcc caagcgcatc
                                                                         900
 cytctggtgt ccccctgaca cgcctccaaa gtgagcaggt aggtttcaac agccccacgt
                                                                         960
 tgcaggtggg agatgaagct cagggtggag accagtatct cacagttctc tttgcatggc
                                                                        1020
cgggtacttg ttagtcaact gatcaagtga aaattctagc cccagaggca ggagaatccg
                                                                        1080
 gaacaaatt aaaccagcca gg
                                                                        1102
<210> 90
<211> 1533
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (123)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1522)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1527)
<223> n equals a,t,g, or c
<400> 90
ggcacgagcc gncacgggca gcgccccata gcgccaggga ccccctggca gcgggagccg
```

```
cgggtcgagg ttatggatcc agcgggcggc ccccggggcg tgctcccgcg gccctgccgg
                                                                        120
tgnctggtgc tgctgaaccc gcgcggcggc aagggcaagg ccttgcagct cttccggagt
                                                                        180
                                                                        240
cacgtgcagc cccttttggc tgaggctgaa atctccttca cgctgatgct cactgagcgg
                                                                        300
cggaaccacg cgcgggarct ggtgcggtcg gaggagctgg gccgctggra cgctctggtg
gtcatgtytg gagacgggct gatgcacgag gtggtgaacg ggcttcatgg agcggcctga
                                                                        360
ctgggagacc gccatccaga agcccctgtg tagcctccca gcaggctctg gcaacgcsct
                                                                        420
ggcagcttcc ttraaccatt atgctggcta tragcaggtc accaatgaag acctcctgac
                                                                        480
caactgcacg ctattgctgt gccgccggct gctgtcaccc atgaacctgc tgtctctgca
                                                                        540
cacggetteg gggetgegee tettetetgt geteageetg geetgggget teattgetga
                                                                        600
tgtggaccta gagagtgaga agtatcggcg tctgggggag atgcgcttca ctctgggcac
                                                                        660
cttcctgcgt ctggcagccc tgcgcaccta ccgcggccga ctggcctacc tccctgtagg
                                                                        720
                                                                        780
aagagtgggt tecaagacae etgeeteece egttgtggte eageagggee eggtagatge
acaccttgtg ccactggagg agccagtgcc ctctcactgg acagtggtgc ccgacgagga
                                                                        840
                                                                        900
ctttgtgcta gtcctggcac tgctgcactc gcacctgggc agtgagatgt ttgctgcacc
                                                                        960
catgggccgc tgtgcagctg gcgtcatgca tctgttctac gtgcgggcgg gagtgtctcg
tgccatgctg ctgcgcctct tcctggccat ggagaagggc aggcatatgg agtatgaatg
                                                                       .1020
cccctacttg gtatatgtgc ccgtggtcgc cttccgcttg gagcccaagg atgggaaagg
                                                                       1080
tgtgtttgca gtggatgggg aattgatggt tagcgaggcc gtgcagggcc aggtgcaccc
                                                                       1140
aaactacttc tggatggtca geggttgegt ggageeeeeg eeeagetgga ageeeeagea
                                                                       1200
gatgccaccg ccagaagagc ccttatgacc cctgggccgc gctgtgcctt agtgtctact
                                                                       1260
tgcaggaccc ttcctccttc cctagggctg cagggcctgt ccacagctcc tgtgggggtg
                                                                       1320
                                                                       1380
gaggagactc ctctggagaa gggtgagaag gtggaggcta tgctttgggg ggacaggcca
                                                                       1440
gaatgaagtc ctgggtcagg agcccagctg gctgggccca gctgcctatg taaggccttc
                                                                       1500
tagtttgttc tgagaccccc accccacgaa ccaaatccaa ataaagtgac attcccaaaa
                                                                       1533
aaaaaaaaa aaaaaaaaa ancccgnggg ggg
<210> 91
<211> 575
<212> DNA
<213> Homo sapiens
<400> 91 -
atcetetgga atctaggtgg aagecaccaa geettettea caettgegtt etgageatet
                                                                         60
gcagacttaa ccccatgtgg caatcaccaa ggcttatggc ttgtgtcctc cagaactgtg
                                                                        120
gccagagctg tacctgggcc cctttgagct gaggctgaag ccagagtctg aagctcagca
                                                                        180
gggcagtarg gccctgggcc tggcccctga aaccattctt ttctcctaag cctctgggcc
                                                                        240
tttgatggga rgggctgtcc tcaagatttt tgaaatgcct ttggagggtt tttgccttgt
                                                                        300
cttggatatt ggcttccttt tagttatgct catctctcta gcaagtgaat gtttcacaac
                                                                        360
                                                                        420
ctgcttggat tctttctcta ccacagarcc aggctgcaaa ttttacaaac ttttacactc
                                                                        480
tgtttccctt ttaaatataa atttcaatgt taagtcactt ctttgctccc atatctgatt
                                                                        540
taggttgctg gaagtagcca agtcacctct tgaatgcttt gctgcttaga aatttcctct
                                                                        575
actaggtagc ctgggtcatc acacttaagt tcaaa
<210> 92
<211> 639
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (62)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (126)
```

<223> n equals a,t,g, or c

<400> 92			•			•
	ttaagcacca	cccaacaaaa	caggtactat	taccatctcc	gtttgacaga	. 60
				ggatcgcccc		120
		_		ggcttctaac		180
				gtcatgccac		240
						300
				cagccatttc		
				atttgtcaca		360
				tcacacgtcc		420
				agtgacaggg		480
			and the second s	agtaacaaac		540
gtcaggaagg	aaaggttaag	gatgccagga	aggcttttaa	taaataacct	gacttagatg	600
ggcaggtggt	gctgargatt	aagaacgtgt	tcttctcga			639
					•	
<210> 93						
<211> 858	•		• .		•	
<212> DNA						
<213> Homo	sapiens					
<400> 93					•	
ccccaaact	gcaggaattc	ggcacgagag	taactaaaat	ctggctgcag	agggaagaca	60
•		•		ggccattgtc		120
				cccaggaggg		180
				agaatggcca		240
				ctgctgctcc		300
				agcagaccct		360
				tcacccctac		420
						480
				taccaagaca		540
				ggagagtgga		
				tttcaaggac		600
				gcaatcatag		660
				ccaaggagct		720
				gtggccaggc		780
		ttgggaggct	gaggcaggag.	gaatgcttga	gcccaggagc	840
tcgagggggg	gcccggta					858
					••	
<210> 94		•		**		
<211> 526						
<212> DNA						
<213> Homo	sapiens	•			•	
		•		•		
<400> 94		•			•	
gcaggggaat	tcggccacgg	aggggtttca	acagggcccg	tggggtgagg	tgcaracaca	⁻ 60
aagcccataa	gtgctggcct	gttgggacaa	atgagagaaa	tcccataggg	tggtgatgac	120
agcgcaytca	gccatcytay	tcctggggaa	aatgaaactt	gtgctcctat	caaatgctca	180
				agcatctgtg		240
				tgtccaaggt		300
				gtgccgctgg		360
				attagtagtt		420
				tagggaaaaa	-	480
	ctctaccagt				- acceguada	526
	cocaccage	2233334	gcaccaagag			220

<210> 95 <211> 426

```
<212> DNA
<213> Homo sapiens
<400> 95
                                                                          60
ggcaeaggge aggagagact tggtccatgg ggagaagcct gcagtataga tgggacctcc
aggagcccaa gtagcataga ccctgctgat ccggggccat tgagccagag gatttgggct
                                                                         120
                                                                         180
gaatgtcccc agagacaaaa gggaaaggta gatcctttcc cttaaagatg aaagccatcg
cccgggcttg cttattgctc tctctcctgg tccttccaca tgttgtttct gaacatttgt
                                                                         240
                                                                         300
totggcatca caatococgt catcotgtca totggccctt cocaccitto caccitatot
                                                                         360
cttgcagtgt ctccgcgtcg acctggcacc tgggtgaarg cttgctcttg ctggtgccca
                                                                         420
tagccccag tgtatggtct tgamctcccc agccatatgg aracccacct caggagggcc
                                                                         426
cctcga
<210> 96
<211> 844
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (416)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (471)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (490)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (732)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (835)
<223> n equals a,t,g, or c
<400> 96
                                                                          60
ggcacagegg caegagatag gaagettgge aggggcaget ecceeagtge geattgeeet
gtaactcgag cgcctgggag tggggagagg cttggaaatg gagcagggtg gtggacctcg
                                                                         180
tottotootg ctcatcocag gcctcotoca taacacctac ctagcacggc ctggggactt
                                                                         240
cccagcccaa ggaacaactg agaatactga gtgccagggt agccctagcc ccatttcaca
                                                                         300
cctgggcaaa gtgaggtcac tggattcaaa cactcagatt taaacctcct ctgtgtctgc
agcacctgta tataactgcc agcctctgct gcccctctcc aaaaagtctc tgcccttgtc
                                                                         360
                                                                         420
tttggcacct gtctctgtcc tccccattct ctgctcctcc tttctccaac tcagantcac
                                                                         480
cctgttagtt cagcaaatgt tcatcgagct ccataatgta gcaggacagg nctgtctaac
                                                                         540
agattetggn ettgeaaggg tgagacaagt aeteteeate ttteteteat etteacagat
                                                                         .600
ggtctgctca acaactttgc actgaattgt aaataattga tactgcataa aacattgatg
ttctttaagg gtagtccagc aaggtggcaa gtcttataat gataactgct caaggatctc
                                                                         660
tcagtgaagc atttggggst gctagctctg cctatgggtg aggtcagcta tctcacgcca
                                                                         720
                                                                         780
totacttoca entgececce catgoragge teaccetgag etgagatgee tgageaggtg
```

```
gcagaaagga gccacctggt ttatgcttcg ggaccacaaa ctcctctatc cagangacag
                                                                       840
 tttt
                                                                       844
 <210> 97
 <211> 1985
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (332)
 <223> n equals a,t,g, or c
<400> 97
agccctgctg aagtacaggt tcttctatca gtttctgttg ggcaatgaac gagcaacagc
                                                                        60
aaaggagatc agggatgaat atgtggagac gctgagcaag atttacctgt cttactaccg
                                                                       120
ctcttacctg gggcggctca tgaaggtgca gtatgaggaa gtcgctgaga aagatgatct
                                                                       180
aatgggtgtg gaagatacag caaagaaagg attctyctca aagccatcgc tccgcagcag
                                                                       240
gaacaccatt ttcaccctag gaacccgcgg ctctgtcatc tcccccactg aacttgaggc
                                                                       300
ccccatcctg gtgcctcaca cagegcageg gnagagcaga ggtatccatt tgaggccctc
                                                                       360
ttccgcagcc agcactacgs cctcctagac aattcctgcc gcgaatacct tttcatctgt
                                                                       420
gaattttttg ttgtgtctgg cccagytgca cacgacctgt tccatgctgt catgggccgt
                                                                       480
acactcagca tgaccctgaa acacctggat tettatetag etgactgeta egatgeeatt
                                                                       540
gctgtttttc tctgtatcca cattgttctc cggttccgta acattgcagc aaagagggat
                                                                       600
gttcctgccc tggacaggta ctggggaaca ggtgcttgcc ttgctatggc cacggtttga
                                                                       660
actgatectg gagatgaatg tteagagegt eegaageaet gaeeeeeage geetaggggg
                                                                       720
gttggatact cggccccact atatcacacg ccgctatgca gagttctcct ccgctcttgt
                                                                       780
cagtatcaac cagacaattc ctaatgaacg gaccatgcaa ttgctgggac agctgcaggt
                                                                       840
ggaggtggag aattttgtcc tccgagtggc agctgagttc tcctcaagga aggagcagct
                                                                       900
tgtgtttctg atcaacaact atgacatgat gctgggtgtg ctgatggagc gggctgcaga
                                                                       960
tgacagcaaa gaggttgaga gcttccagca gctgctcaat gctcggacac aggaattcat
                                                                      1020
tgaagagttg ctgtctcccc cttttggggg tttagtggca tttgtgaagg aggctgaggc
tttgattgag cgtggacagg ctgagcgact tcgaggggaa gaagcccggg taactcagct
gatccgtggc tttggtagtt cctggaaatc atcagtggaa tctctgagtc aggatgtaat
                                                                     1200
geggagttte accaacttea gaaatggeae cagtateatt cagggagege tgaeccaget
                                                                     1260
gatecagete tateateget tecacegggt getgteecag eegeagetee gageceteee
                                                                     1320
tgcccgggct gagctcatca acattcacca ccttatggtg gagctcaaga agcataagcc
                                                                     1380
caacttctga tgtgccagaa accgccctga gatctgccgg tcatctccat ggacttctgc
                                                                     1440
accccattcc atacccttct tcacctgggg taccccttcc agttttcccc ttgcttccca
                                                                     1500
ggcccttgac atggcttacc tgccttcact cccagcacct tgcccaacag gataagctgg
                                                                     1560
atccccttgg ccttctgaat atcccagtgt cttcaggttt cccaagacca cttccctgtg
                                                                     1620
ggcttccaaa atggccttta tcatttctcc agtctgtcac cctcctttcc tgctcccata
                                                                     1680
cacccaagge ttgtttcttc ccctgtaaaa accactgcct caatctctgg ttcactcaac
                                                                     1740
tagtcaccat gtcctgaggc atgaagcctc ctcagctctt ggaattgctg gcaaggggtg
                                                                     1800
actgcctctg agtcattgtg tttttcaaag tgatttcttt tctgtagctt tttgacctaa
                                                                     1860
gatctcagca atttgaacac taacctctcc cctcctggct caagaattac tccgaagtca
                                                                     1920
1980
aaaaa
                                                                     1985
<210> 98
<211> 1416
<212> DNA
<213> Homo sapiens
<400> 98
```

atatgaaggg aaagaatttg attatgtttt ctcaattgat gtcaatgaag gtggaccatc

```
120
atataaattg ccatataata ccagtgatga cccttggtta actgcataca acttcttaca
gaagaatgat ttgaatccta tgtttctgga tcaagtagct aaatttatta ttgataacac
                                                                      180
aaaaggtcaa atgttgggac ttgggaatcc cagcttttca gatccattta caggtggtgg
                                                                      240
                                                                      300
teggtatgtt cegggetett egggatette taacacacta eccaeageag ateettttae
aggtgctggt cgttatgtac caggttctgc aagtatggga actaccatgg ccggagttga
                                                                      360
                                                                      420
tocatttaca gggaatagtg octaccgate agetgeatet aaaacaatga atatttattt
ccctaaaaaa gaggctgtca catttgacca agcaaaccct acacaaatat taggtaaact
                                                                      480
gaaggaactt aatggaactg cacctgaaga gaagaagtta actgaggatg acttgatact
                                                                      540
                                                                      600
tcttgagaag atactgtctc taatatgtaa tagttcttca gaaaaaccca cagtccagca
acttcagatt ttgtggaaag ctattaactg tcctgaagat attgtctttc ctgcacttga
                                                                      660
cattettegg ttgtcaatta aacaceecag tgtgaatgag aacttetgea atgaaaagga
                                                                      720
aggggctcag ttcagcagtc atcttatcaa tcttctgaac cctaaaggaa agccagcaaa
                                                                      780
840
catgatgtcc cagagggaat cactgatgtc ccatgcaata gaactgaaat cagggagcaa
                                                                      900
taagaacatt cacattgctc tggctacatt ggccctgaac tattctgttt gttttcataa
                                                                      960
agaccataac attgaaggga aagcccaatg tttgtcacta attagcacaa tcttggaagt
                                                                     1020
agtacaagac ctagaagcca cttttagact tcttgtggct cttggaacac ttatcagtga
                                                                     1080
tgattcaaat gctgtacaat tagccaagtc tttaggtgtt gattctcaaa taaaaaagta
                                                                     1140
                                                                     1200
ttcctcagta tcagaaccag ctaaagtaag tgaatgctgt agatttatcc taaatttgct
gtagcagtgg ggaagaggga cggatatttt taattgatta gtgttttttt cctcacattt
                                                                     1260
gacatgactg ataacagata attaaaaaaa gagaatacgg tggattaagt aaaattttac
                                                                     1320
atcttgtaaa gtggtgggga ggggaaacag aaataaaatt tttgcactgc tgaaaaaaaa
                                                                     1380
                                                                     1416
aaaaaaaaa aaaaggaaac tcgagggggg gcccgg
<210> 99
<211> 1760
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (24)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (39)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (255)
<223> n equals a,t,g, or c
<400> 99
geetteaact ettgttttat tganttatga attettaant ettetatgge aggagaeate
                                                                       60
tatggggagg ctttgtttgt tttttgagac agggtctcat ttgtcgccca gggtgagact
                                                                      120
ctgtctcaaa aaaataaaat aaaataaaat aaaaacaaag aaaaaaaaat aaaatcttta
                                                                      180
ggcattccca gacacaaga tctcagagac agacaacaga gagcytccgt gttcatctgc
                                                                      240
                                                                      300
ccgaggctgt ttgtncacag ttcccttaaa agatgcctgg aaatgctccc aacaacaagg
gactcaagta tggggctgag tttgttaaaa aagcagctaa atgtgtttag gaaacacacg
                                                                      360
aagtgaaacc agacagtgat ggcccatgta caagacttgt gcttgaagct ttggtgtgcc
                                                                      420
                                                                      480
tccatggcca atttttcagg caccaaaacc cattcctgat taattattgt taaaaaaagca
gctaaatgtg tttaggaaac acacgaagtg aaaccagaca gtgatggccc atgtacaaga
                                                                      540
                                                                      600
cttgtgcttg aagctttggt gtgcctccat ggccaatttt tcaggcacca adacccattc
ctgattaatt attgatatac aatgcaaacc aaactatgaa aacacagact ttttttcaga
                                                                      660
agagggaaat aaaggcacag aaacctgcca aaatagatat ttttttccat aagaatagta
                                                                      720
```

```
780
tggttgatta aaatagttta tcactagtaa aacttgtatc actagagcag acaatacaaa
                                                                      840
ttagtttttt aaaaaatgac attcactgaa ttcttggtct gtgcattcaa tgtgaataat
                                                                      900
catcaaaaat atattacaat taaaggtttg taaggagctc tgtctgggat ttctgcagta
tattatttcg gaggagaaga accaccataa agtatgagct atccactgtt cctttttatg
                                                                      960
tcatgtatgg taatcagtct atctcctaat gcaggctcac aaacttccac ggtgagatgt
                                                                     1020
                                                                     1080
ctaagtgact tagtgacctt cacactcatt aaaggcagcc ctgtccatca aactccatac
                                                                     1140
ctagaaagtt caataaactg tattacattt taataaatat ktctgtgtac tttttgtttt
ttgcttttaa gctcagctta aattttgtca aggaaaccat ttcacaagac agtatgtcac
                                                                     1200
agectactat cageaatagt cettgtttat tagaatetge agatgteeat attacateaa
                                                                     1260
atataaatat atattatatt tacattteet tettagettt caatttaggt gagtgtattt
                                                                     1320
atagataatg ccactaacge accactatte taateeteag tgeaacteat acettettte
                                                                     1380
cattagatgc tcattaatgt aagacagcat cttaaaaagag gggtactgtt ctttttaaa
                                                                     1440
                                                                     1500
ataaaaggaa agaaagggaa tocaagaatg gaggtotaga catttoctaa gagatttttg
ttttgttttt tatacttaga aatacttgaa aaatgtggtc cctttttgta gtactagtct
                                                                     1560
ctacttgggg acaagaaaat agaatatgca actcagaaag gaaagasccc aaagamgara
                                                                     1620
raacctgctt gtttactcca ttaacctgtt taattaagat ctgcttttaa atgcctgatg
                                                                     1680
ctgtgccagt atcatacaaa acatcttcca ccttccaagc agctgaagca cctcctcaaa
                                                                     1740
                                                                     1760
attctgtttg tcctgaataa
<210> 100
<211> 599
<212> DNA -
<213> Homo sapiens
<400> 100
gaatteggea egagegteea egeageegee ggeeggeeag cacceaggge eetgeatgee
                                                                       60
                                                                      120
cctcatcctg atgggcactg aactcactca agactccgct gcccccgact ccctgctgag
                                                                      180
                                                                      240
aagttcaaag ggcagcacga gggggtcttt ggctgctatt gtcatctgga gggggaagag
tgagagccgg atagccaaga ccccaggcat tttcagaggt ggcgggacct tagtcctacc
                                                                      300
cccaacacac acccctgagt ggctcatcct ccctttgggc ataacgctgc ccttgggggc
                                                                      360
tccagaaaca ggcggtgggg attgtgccgc tgagacctgg aagggcagcc agcgtgccgg
                                                                      480
ccagctgtgt gcattgctgg cttaatatgc agggcttggg gggctgtggc cacatgcccg
                                                                      540
gcaggaggtg agtgaggagc cctgtggcgt gctggtgtgg ggatcgtggg catttcaaac
                                                                      599
gggcttgtcg taccctgaac aatgtatcaa tagagaaaaa aaaaaaaaa aaaactcga
<210> 101
<211> 784
<212> DNA
<213> Homo sapiens
<400> 101
gaattcggca cagaaaaaaa agagagactg ggtcttactg tgttgcccag acttgtcttg
                                                                       60
aactcctgcc tcagcctctc aagtacttgg gattataggc caagaagcca ccatgcctag
                                                                      120
cttcttcctg tcattgatcc agactaatac tctggggtca gcctcatttc ttctcttct
                                                                      180
                                                                      240
cactttgcac atccacttgt caccaaatck rgttcattct gcatcctaag taagtccttt
                                                                      300
gattcctcca gttgttcatt agtaatgtct caartgtaat tttttctagt agttttcagc
ctgtctttcc kgccttcagt cttaacttct ccagtacata kgccacattg ttgtcagcak
                                                                      360
gatcawattt tatttaaaaa tactttacaw akgtttatkg ccaaatatta graaatacag
                                                                      420
attcatggaa agaaaaatca ctgtcccaag gaggtcactg gcatggtgag gttaaggggt
                                                                      480
                                                                      540
qattttaatt tttaaaaatg tatatttttt cctgtgtaga gtagtaacac ccttgaaaac
                                                                      600
acawtccctt gtaaagtctc taattctgta ctccgcatct agstgrtctc ttcttctca
                                                                      660
qatattttac aatttcattt atcaccacct ttctctagcc tttacccgtc tcttcaatat
                                                                      720
twacatatgc agaagtttct cctaacaaac acctgcctct gcctcagttc tgctaccacc
                                                                      780
ctgttgcttt ctttcccttc acaatcaaat ttaagagtgt caaaaaaaaa aaaaaaaaac
                                                                      784
tcga
```

```
<210> 102
<211> 404
<212> DNA
<213> Homo sapiens
<400> 102
                                                                      60
ggcacgagtt ataaaattga gactgatgaa acatcaatac tagagcccat gaggatgaaa
                                                                     120
gaaattatca aatagtgctg aacagaataa gatgttaacg ctgagttatt aggactggaa
ggctatgaaa agaacttgaa attgtcggaa tatgtgctct cttcatgtca tattcaatag
                                                                     180
                                                                     240
aagtttctag tttaagattg attttgtgtt ttcttaggca tttcaagtga caagcaaagt
                                                                     300
aaatgtatat attatgtgat aaatcatgtt ttcaagaacg tcaaatttct ggactttttt
                                                                     360
ctttcaattt ttaattttta aagttttttt ggtattaaaa aatctattca caagccaaaa
                                                                     404
<210> 103
<211> 2218
<212> DNA
<213> Homo sapiens
<400> 103
aggtattagg cocttttgtg ggagccccat gttttgtttt tctgagttgg tggggaggga
                                                                      60
                                                                     120
sggaggggga gggctgaatt gttttgcaga ggaagatggc atctgtgctt taaatttctc
attactgggt tagaaaacaa agagggaktg ccctgcacat tttcttttgt gcttttaaat
                                                                     180
gtttcttaag ttggaacagg tttcctcggg cctgttttga ctgattgctg qagtgcattt
                                                                     240
gatagttaaa aattactaat tggttttatt teeetteaca etetgeetee eeacttetee
                                                                     300
                                                                     360
tgtatccttt aaattaaaaa ccacaagtgt ttattgtagt ggttaaactg tagcatctca
                                                                     420
                                                                     480
gcatctgggt ggaagctgcc tatatttctt cccagtttaa ctggggacca tctgtgaaat
taattttcca tccagacagc tgctgtgagc aaatgaacat aaatgctcgc tggaaattta
                                                                     540
ctaaccagtt tttatattga cctgcagtgt aaaaagcaca tttaattata aacaatatat
                                                                     600
tcaaaatggg caaattttat tttcaaatgc agtgtagagc tagattaaaa gcaactcttt
                                                                     660
                                                                     720
gccacctact ctgccctttt ggcaaagtta ccttgaacaa agaatcttaa gggtttatta
                                                                     780
agaactettt attttettea taccetgtte tetgeagtge tttetaacag ettetgggtg
                                                                     840
cagattttct tcggcatcct tttgcactca gcttattaca ggtaggtagt gcttaagaaa
                                                                     900
agtcatggag gactaaagcc taagtccttt tcacttttcc tccatctgaa ggtaggtgag
ttcatcctct tcatagtaat gctgttttac caagacttta tagcagatgg acccagaaag
                                                                     960
aattttctgc tattgtgttc actacaacag gatagggaca tcagacagcc ccagaaaccc
                                                                    1020
cttccagatc tgatatggga ctattaattt ttatgctgtt aattggtatt cattcacaat
                                                                    1080
gcagttgaag ggggaaggct ccactgcatt ctttggctaa ggcctgaatg cttgctcatc
                                                                    1140
tgtaagatct atactcgagg ttttgttttc cttttaaaat tctttaggga gagagggatg
                                                                    1200
gtttctgagg ggttctgaaa gtatgattca atgtgcaaca tacaggtagg tcttcagcat
                                                                    1260
aagctgaaat atatgcatgt aaaaactttg acatcttttt ttttaatttt ccactttctt
                                                                    1320
                                                                    1380
cttaacttta cttctctttt tgtcccccc ccatcttaca gaagttgagg ccaagggaga
                                                                    1440
atggtaggca cagaagaaac atggcaaact gctctgtgct ttcaaaccaa agtgttcccc
                                                                    1500
ccaaccccaa atttgtctaa gcactggcca gtctgttgtg ggcattgttt tctacaacca
                                                                    1560
aattctgggt ttttttcttc tttctttaaa catagaggta ccaccacaag ggatgcccta
ctctctcgca gctcttgaaa gcatctgttt gagggaaagg tctctgggca agcaagtggt
                                                                    1620
                                                                    1680
tatttggatt gettgettee etttteeae etgggacatt gyaateataa aataacagta
                                                                    1740
aattccaaac ctcaaaaact attatggcct gagcacagct gaaatctagc agagtttaac
                                                                    1800
tettetgeet ceatgtetgt caettataat teaggtietg etgttggett cagaacatga
gcagaagaat cgttttatgc tagttattgc attcatggtt gaaactcaac ttagggaaag
                                                                    1860
                                                                    1920
ggttccaatg tattaagcaa tgggctgctt ctccccaatc ctccctaaca attcgttgtg
                                                                    1980
tggacttctc atctaaaagg ttagtggctt ttgcttggga tcagtgctct ctattgatgt
                                                                    2040
tettgetggt etceagacae attectgttg cattaagaet tgaaagaett gtagatgtgt
gatgttcagg cacaggatgc tgaaagctat gttactattc ttagtttgta aattgtcctt
                                                                    2100
```

```
ttgataccat catcttgttt tctttttgta ggtataaata aaaacactgt tgacaataaa
<210> 104
<211> 1351
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (544)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (774)
<223> n equals a,t,g, or c
<400> 104
tggactctag ctctgtcacc caggctggag tgcagtggtg cgatctcggc tcactgcaag
                                                                  120
ctccgcctcc cgggttctca ccattctcct gcctcagcct cccgagtagc tgggactaca
                                                                  180
ggcgcccacc accacgcccg gctaattttt tgtatttttt agtagagacg gggtttcacc
                                                                  240
atgttageca ggatggtete gateteetga eetegtgate egeeegeyte ggeeteeeaa
                                                                  300
agtgctggga ttacaggcgt gagccaccgt gcctgcccca gaatggtttt taaagccaca
                                                                  36.0
gttgagarge cacccattge ceggegeetg gacagtgate atettgttea tettgtteag
                                                                  420
tectttettg tgtgattgga attatteate ecetttgaaa gatgagaagg ttgagatgea
                                                                  480
aagagtctac ctttccaagt tctcactgct ggaaagarct agaagcacag ttcaaagttc
                                                                  540
tggnttctgg actctgcagt ccaggtytcc cttytcccac ttgcctaccc tcaatgccac
                                                                  600
actgtttttg aagtggccca taacttgaag graaagttta aagacagttc aatttaatca
                                                                  660
tcagratgca ttctttttt tttcggarac ggaktttcac tcttgctgcc casgctggag
                                                                  720
tgcaatggtg caatgatctc ggctcactgc aacctatgcc tcctgggttc aagngattat
                                                                  780
ccagcctcag cctcccgagt agctgggatt atgggcgccc accaccatgc ccagctaatt
                                                                  840
tttgtatttt ttttttagt agagatgggg tttcgccagg ttggccaggc tgktcttgtg
                                                                  900
aaytcctggc ytcaggtgat ytgcccacyt catcytccaa aagtgctggg attacaggca
                                                                  960
tgagccactg cgcctggcyt cagaatgcat tcttacacat ctatcctaga catttataag
                                                                 1020
cactctaatg gataacaatc caagaataaa tgattgtaaa agatgatgcc gaagagttga
                                                                 .1080
tgtcaatctt tttttcctaa gaaaaaaagt ccgcgagtat taaatattta gatcaatgtt
                                                                - 1140
tataaaatga ttactttgta tatctcatta ttcctatttt ggaataaaaa ctgaccttct
                                                                 1200
ttaatcatat acttgtcttt tgtaaatagc agcttttgtg tcattctccc cactttatta
                                                                 1260
gttaatttaa attggaaaaa accctcaaac taatattctt gtctgttcca gtcttataaa
                                                                 1320
taaaacttat aatgcatgta aaaaaaaaa a
                                                                 1351
<210> 105
<211> 2066
<212> DNA
<213> Homo sapiens
<400> 105
ggcacgaggc ggcggagggc cacaatcaca gctccgggca ttgggggaac ccgagccggc
                                                                   60
tgcgccgggg gaatccgtgc gggcgccttc cgtcccggtc ccatcctcgc cgcgctccag
                                                                  120
cacctctgaa gttttgcagc gcccagaaag gaggcgagga aggagggagt gtgtgagagg
                                                                  180
240
                                                                  300
caaaaatggc tggggcaatt ataqaaaaca tgagcaccaa gaagctgtgc attgttggtg
                                                                  360
ggattctgct cgtgttccaa atcatcgcct ttctggtggg aggcttgatt gctccagggc
ccacaacggc agtgtcctac atgtcggtga aatgtgtgga tgcccgtaag aaccatcaca
```



1020

```
480
agacaaaatg gttcgtgcct tggggaccca atcattgtga caagatccga gacattgaag
                                                                        540
aggcaattcc aagggaaatt gaagccaatg acatcgtgtt ttctgttcac attcccctcc
                                                                        600
cccacatgga gatgagtcct tggttccaat tcatgctgtt tatcctgcag ctggacattg
                                                                        660
ccttcaaqct aaacaaccaa atcagagaaa atgcagaagt ctccatggac gtttccctgg
                                                                        720
cttaccgtga tgacgcattt gctgagtgga ctgaaatggc ccatgaaaga gtaccacgga
                                                                        780
aactcaaatg caccttcaca tctcccaaga ctccagagca tgagggccgt tactatgaat
                                                                        840
gtgatgtcct tcctttcatg gaaattgggt ctgtggccca taagttttac cttttaaaca
                                                                        900
tccggctgcc tgtgaatgag aagaagaaaa tcaatgtggg aattggggag ataaaggata
                                                                        960
tccggttggt ggggatccac caaaatggag gcttcaccaa ggtgtggttt gccatgaaga
                                                                       1020
ccttccttac gcccagcatc ttcatcatta tggtgtggta ttggaggagg atcaccatga
tgtcccgacc cccagtgctt ctggaaaaag tcatctttgc ccttgggatt tccatgacct
                                                                       1080
                                                                       1140
ttatcaatat cccagtggaa tggttttcca tcgggtttga ctggacctgg atgctgctgt
                                                                       1200
ttggtgacat ccgacagggc atcttctatg cgatgcttct gtccttctgg atcatcttct
                                                                       1260
gtggcgagca catgatggat cagcacgagc ggaaccacat tgcagggtat tggaagcaag
teggacecat tgccgttggc teettetgcc tetteatatt tgacatgtgt gagagagggg
                                                                       1320
                                                                       1380
tacaactcac gaatcccttc tacagtatct ggactacaga cattggaaca gagctggcca
                                                                       1440
tggccttcat catcgtggct ggaatctgcc tctgcctcta cttcctgttt ctatgcttca
tggtatttca ggtgtttcgg aacatcagtg ggaagcagtc cagcctgcca gctatgagca
                                                                       1500
aagtccggcg gctacactat gaggggctaa tttttaggtt caagttcctc atgcttatca
                                                                       1560
ccttggcctg cgctgccatg actgtcatct tcttcatcgt tagtcaggta acggaaggcc
                                                                       1620
                                                                       1680
attggaaatg gggcggcgtc acagtccaag tgaacagtgc ctttttcaca ggcatctatg
                                                                       1740
ggatgtggaa tetgtatgte tttgetetga tgttettgta tgeaccatee cataaaaact
atggagaaga ccagtccaat ggaatgcaac tcccatgtaa atcgagggaa gattgtgctt
                                                                       1800
tgtttgtttc ggaactttat caagaattgt tcagcgcttc gaaatattcc ttcatcaatg
                                                                       1860
                                                                       1920
acaacgcagc ttctggtatt tgagtcaaca aggcaacaca tgtttatcag ctttgcattt
                                                                       1980
gcagttgtca cagtcacatt gattgtactt gtatacgcac acaaatacac tcatttagcc
                                                                       2040
tttatctcaa aatgttaaat ataaggaaaa aagcgtcaac aataaatatt cttgagtata
                                                                       2066
aaaaaaaaa aaaaaaaaa aaaaaa
<210> 106
<211> 1705
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (724)
<223> n equals a,t,g, or c
<400> 106
                                                                         60 <sup>1</sup>.
aattcggcak agggcagctg tcggctggaa ggaactggtc tgctcacact tgctggcttg
                                                                        120
cgcatcagga ctggctttat ctcctgactc acggtgcaaa ggtgcactct gcgaacgtta
agteegteee cagegettgg aateetaegg ceeecacage eggateeeet eageetteea
                                                                        180
                                                                        240
ggtcctcaac tcccgyggac gctgaacaat ggcctccatg gggctacagg taatgggcat
                                                                        300
cgcgctggcc gtcctgggct ggctggccgt catgctgtgc tgcgcgctgc ccatgtggcg
cgtgacggcc ttcatcggca gcaacattgt cacctcgcag accatctggg agggcctatg
                                                                        360
gatgaactgc gtggtgcaga gcaccggcca gatgcagtgc aaggtgtacg actcgctgct
                                                                        420
                                                                        480
ggcactgccg caggacctgc aggcggcccg cgccctcgtc atcatcagca tcatcgtggc
                                                                        540
tgctctgggc gtgctgctgt ccgtggtggg gggcaagtgt accaactgcc tggaggatga
                                                                        600
aagcgccaag gccaagacca tgatcgtggc gggcgtggtg ttcctgttgg ccggccttat
ggtgatagtg ccggtgtcct ggacggccca caacatcatc caagacttct acaatccgct
                                                                        660
                                                                        720
ggtggcctcc gggcagaagc gggagatggg tgcctcgctc tacgtcggct gggccgcctc
cggnctgctg ctccttggcg gggggctgct ttgctgcaac tgtccacccc gcacagacaa
                                                                        780
geettactee geeaagtatt etgetgeeeg etetgetget geeageaact aegtgtaagg
                                                                        840
                                                                        900
tgccacggct ccactctgtt cctctctgct ttgttcttcc ctggactgag ctcagcgcag
                                                                        960
gctgtgaccc caggagggcc ctgccacggg ccactggctg ctggggactg gggactgggc
```

agagactgag ccaggcagga aggcagcagc cttcagcctc tctggcccac tcggacaact

<400> 108

```
1080
toccaaggoo gootootgot agcaagaaca gagtocacco toototggat attggggagg
                                                                       1140
gacggaagtg acagggtgtg gtggtggagt ggggagctgg cttctgctgg ccaggatggc
ttaaccctga ctttgggatc tgcctgcatc ggtgttggcc actgtcccca tttacatttt
                                                                       1200
coccactoty totgootyca totoototyt tycygytagy cottyatato acctotygya
                                                                       1260
ctgtgccttg ctcaccgaaa cccgcgccca ggagtatggc tgaggccttg cccacccacc
                                                                       1320
tgcctgggaa gtgcagagtg gatggacggg tttagagggg aggggcgaag gtgctgtaaa
                                                                       1380
caggtttggg cagtggtggg ggagggggcc agagaggcgg ctcaggttgc ccagctctgt
                                                                       1440
                                                                       1500
ggcctcagga ctctctgcct cacccgcttc agcccagggc ccctggagac tgatcccctc
tgagtcctct gccccttcca aggacactaa tgagcctggg agggtggcag ggaggagggg
                                                                       1560
                                                                       1620
acagetteae cettggaagt cetggggttt tteetettee ttetttgtgg tttetgtttt
gtaatttaag aagagctatt catcactgta attattatta ttttctacaa taaatgggac
                                                                       1680
                                                                       1705
ctgtgcacag graaaaaaaa aaaag
<210> 107
<211> 1167.
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (6)
<223> n equals a,t,g, or c
<400> 107
nggaghtcca ccgcggtggc ggccgctcta gaactagtgg atcccccggg ctgcaggaat
                                                                         60
teggeacgag gecaccaace gtggeateae gegaateegg ggeaceaget accagageee
                                                                        120
tcacggcatc cccatagacc tgctggacag gcgccatgtc actctccagg gcccggttga
                                                                        180
                                                                        240
ggaaggagaa gctctcgatg tccagcatgt ggacctcgtc gatgaacagc actccaggga
tgatctccgc cttgccctcc tcgcgccact cagccacctt ggcattgatc tgctcacgga
                                                                        300
cttctgactt gatctcccct gtgtcacctg agaagagcgc caggaagccc tgggtgcgag
                                                                        360
agttgatgac gtcgatctcg tgcagggaca cggtgtgcac cacctccttg cgtttctgga
                                                                        420
gctccccatc tgggcactgc acgaacttgg tctgggagcc catagcgtcg tagttcgcgg
                                                                        480
                                                                        540
gcgcgtgtga aggagcggcc cagcttggag atcttgcccg tcgccttgtc gatggtgatc
acgtccccgg cctggacctt gtccttggtc agggamtcaa tcatcttggt gcccaggtcg
                                                                        600
tagatggtct ccatctctgt ggtcttgagg gtcagtttgc ccaccttgga gcccgtccct
                                                                        660
gttgctggtc gatcaatctg gatctccacc acctcccctt cgatgatctc cgtctcctcc
                                                                        720
                                                                        780
ttgatgcgaa cgccgatgga ccgccggaag gcctgcgtca gcgcctcggt cttgctcatc
tccagggaga agatttcact gccggcgatg gctgtgaatg gcgtgtcagg gcccagggcc
                                                                        840
tgcgccatgc ccatggcgat ggccgtcttc cccgtgcccg gctggccagc aataaggact
                                                                        900
georgaeegg caatetteee tteeeggate ateteeagea ceaegeeage egeeegeegt
                                                                        960
                                                                       1020
geogecaget gaccaccat geettgegaa geetgeegag geteeaagge ategteeage
cccagtcccc ggatgtggga gtgggcaccg attcgctcaa tccttgttac atcacggatc
                                                                       1080
                                                                       1140
tccgggactt tggttgtggc tgtaacggtt gccatgatgc tcaccaactg ccagagtcta
                                                                       1167
gcggaaaacc tctgccgaat tcctgca
<210> 108
<211> 1907
<212> DNA
<213> Homo sapiens
```

```
ggcacagggg aatcatcgtg tgatgtgtgt gctgcctttg tgagtgtgtg gagtcctgct
                                                                        60
caggtgttag gtacagtgtg tttgatcgtg gtggcttgag gggaaccctt gttcagagct
                                                                       120
gtgactgcgg ctgcactcag agaagctgcc cttggctgct cgtagcgccg ggccttctct
                                                                       180
cctcgtcatc atccagagca gccagtgtcc gggaggcaga aggtaccggg gcagctactg
                                                                       240
gaggactgtg cgggcctgcc tgggctgccc cctccgccgt ggggccctgt tgctgctgtc
                                                                       300
                                                                       360
catctatttc tactactccc tcccaaatgc ggtcggcccg cccttcactt ggatgcttgc
                                                                       420
cctcctgggc ctctcgcagg cactgaacat cctcctgggc ctcaagggcc tggccccagc
                                                                       480
tgagatctct gcagtgtgtg aaaaagggaa tttcaacgtg gcccatgggc tggcatggtc
                                                                       540
atattacatc ggatatctgc ggctgatcct gccagagctc caggcccgga ttcgaactta
                                                                       600
caatcagcat tacaacaacc tgctacgggg tgcagtgagc cagcggctgt atattctcct
                                                                       660
cccattggac tgtggggtgc ctgataacet gagtatggct gaccccaaca ttcgcttcct
ggataaactg ccccagcaga ccggtgaccg tgctggcatc aaggatcggg tttacagcaa
                                                                       720
cagcatctat gagcttctgg agaacgggca gcgggcgggc acctgtgtcc tggagtacgc
                                                                       780
                                                                       840
caccccttg cagactttgt ttgccatgtc acaatacagt caagctggct ttagcgggga
                                                                       900
ggataggctt gagcaggcca aactcttctg ccggacactt gaggacatcc tggcagatgc
ccctgagtct cagaacaact gccgcctcat tgcctaccag gaacctgcag atgacagcag
                                                                       960
cttctcgctg tcccaggagg ttctccggca cctgcggcag gaggaaaagg aagaggttac
                                                                      1020
tgtgggcage ttgaagaeet cageggtgee cagtaeetee aegatgteee aagageetga
                                                                      1080
gctcctcatc agtggaatgg aaaagcccct ccctctccgc acggatttct cttgagaccc
                                                                      1140
                                                                      1200
agggtcacca ggccagagcc tccagtggtc tccaagcctc tggactgggg gctctcttca
                                                                      1260
gtggctgaat gtccagcaga gctatttcct tccacagggg gccttgcagg gaagggtcca
ggacttgaca tettaagatg egtettgtee eettgggeea gteattteee etetetgage
                                                                      1320
cteggtgtet teaacetgtg aaatgggate ataateactg cettacetee etcacggttg
                                                                      1380
ttgtgaggac tgagtgtgtg gaagtttttc ataaactttg gatgctagtg tacttagggg
                                                                      1440
gtgtgccagg tgtctttcat ggggccttcc agacccactc cccacccttc tccccttcct
                                                                      1500
                                                                      1560
ttgcccgggg acgccgaact ctctcaatgg tatcaacagg ctccttcgcc ctctggctcc
                                                                      1620
tggtcatgtt ccattattgg ggagccccag cagaagaatg gagaggagga ggaggctgag
tttggggtat tgaatccccc ggctcccacc ctgcagcatc aaggttgcta tggactctcc
                                                                      1680
                                                                      1740
tgccgggcaa ctcttgcgta atcatgacta tctctaggat tctggcacca cttccttccc
tggcccctta agcctagctg tgtatcggca cccccacccc actagagtac tccctctcac
                                                                      1800
                                                                      1860
ttgcggtttc cttatactcc acceptttct caacggteet tttttaaage acatetcaga
                                                                      1907
```

```
<211> 611
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (19)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (21)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (47)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (607)
```

<223> n equals a,t,g, or c

<210> 109

```
<220>
<221> SITE
<222> (610)
<223> n equals a,t,g, or c
<400> 109
                                                                       60
atgaattaac gccaagctnt naatagggac tcactatggg ggaaagntgg gtaacgcctg
caggtaccgt tccggaattc ccgggtcgac ccacgcgtcc gatggggctt tagtaaatca
                                                                      120
                                                                      180
ggcttgcagg ctcaaagctg caatctgccc actctcaggt actgagactt tgtgggcctc
                                                                      240
agacaccagg aagaaagttg ggatacagtc atttgagtta aaaagggaat gacccctcag
aaacccgcat tagcagtgtt actcttggaa gtgcctttac ttttaacgct ctctgttctg
                                                                      300
                                                                      360
aaaaagaggt gtttggttac gtgtgagcca acatcacgtt ttgttagctg tgatttacct
                                                                      420
ttgtccgttt aaaagacttc acggagccat tctgtataca aggtgtgctc tttccaatgt
agaaggggtt atggaaaagg gtgcgatcct ttgctgtaaa ctggagagac cagtcccaaa
                                                                      480
cagaggggaa ttttaagccc ttctcatcac ccaattggat gtttttgctt atagcaaatt
                                                                      540
600
                                                                      611
ggggggnccn c
<210> 110
<211> 2632
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (67)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2620)
<223> n equals a,t,g, or c
<400> 110
                                                                       60
tcccagctct caggacaagg gccctgggcg atcttttaaa aaagccgatt gggtgtcttt
                                                                      120
ctaaaantac aaccagtact tcatcgtcaa gtttctggga agggagtccc ctccagattc
tcatggagtg acaaatcttg actottgctc ctggaatttt tcaggcccaa actagcgttt
                                                                      180
ctacaatgat ttatttggca aatttgtctt gattatgggt ggctgatgag gaacgtgctt
                                                                      240
ttgttaggaa ccgaaactgg gcggcggtga gggcgtgtac gcaatgagtc cggaagaggg
                                                                      300
tgaaatgett teggtaggea etceaegget gtgaagatgg eggeggetge gtggetteag
                                                                      360
                                                                      420
gtgttgcctg tcattcttct gcttctggga gctcacccgt caccactgtc gtttttcagt
                                                                      480
gcgggaccgg caaccgtagc tgctgccgac cggtccaaat ggcacattcc gataccgtcg.
gggaaaaatt attttagttt tggaaagatc ctcttcagaa ataccactat cttcctgaag
                                                                      540
tttgatggag aaccttgtga cctgtctttg aatataacct ggtatctgaa aagcgctgat
                                                                      600
tgttacaatg aaatctataa cttcaaggca gaagaagtag agttgtattt ggaaaaactt
                                                                      660
                                                                      720
aaggaaaaaa gaggcttgtc tgggaaatat caaacatcat caaaattgtt ccagaactgc
                                                                      780
agtgaactct ttaaaacaca gaccttttct ggagatttta tgcatcgact gcctctttta
ggagaaaaac aggaggctaa ggagaatgga acaaacctta cctttattgg agacaaaacc
                                                                      840
                                                                      900
gcaatgcatg aaccattgca aacttggcaa gatgcaccat acatttttat tgtacatatt
                                                                      960
ggcatttcat cctcaaagga atcatcaaaa gaaaattcac tgagtaatct ttttaccatg
                                                                     1020
actgttgaag tgaagggtcc ctatgaatac ctcacacttg aagactatcc cttgatgatt
                                                                     1080
tttttcatgg tgatgtgtat tgtatatgtc ctgtttggtg ttctgtggct ggcatggtct
                                                                     1140
gcctgctact ggagagatct cctgagaatt cagttttgga ttggtgctgt catcttcctg
                                                                     1200
ggaatgcttg agaaagctgt cttctatgcg gaatttcaga atatccgata caaaggaraa
                                                                     1260
totgtocagg gtgctttgat cottgcagar ctgctttcag cagtgaaacg ctcactggct
                                                                     1320
cgaaccotgg toatcatagt cagtotggga tatggcatcg tcaagccacg cotggagtea
```

```
ctcttcataa ggttgtagta gcagragccc tctatctttt gttctctggc atggaagggg
                                                                        1380
 tecteagagt tactggggce cagactgate ttgettectt ggeetttate eccttggett
                                                                        1440
 toctagacac tgccttgtgc tggtggatat ttattagcct gactcaaaca atgaagctat
                                                                        1500
 taaaacttcg gaggaacatt gtaaaactct ctttgtatcg gcatttcacc aacacgctta
                                                                        1560
 ttttggcagt ggcagcatcc attgtgttta tcatctggac aaccatgaag ttcagaatag
                                                                        1620
 tgacatgtca gtcggactgg cgggagctgt gggtagacga tgccatctgg cgcttgctgt
                                                                        1680
 totocatgat cototttgto atcatggtto totggcgaco atctgcaaac aaccagaggt
                                                                        1740
 ttgccttttc accattgtct gaggaagagg aggaggatga acaaaaggag cctatgctga
                                                                        1800
 aagaaagctt tgaaggaatg aaaatgagaa gtaccaaaca agaacccaat ggaaatagta
                                                                        1860
 aagttaacaa agcacaggaa gatgatttga agtgggtaga agagaatgtt ccttcttctg
                                                                        1920
 tgacagatgt agcacticca gcccttctgg attcagatga ggaacgaatg atcacacact
                                                                        1980
 ttgaaaggtc caaaatggag taaggaatgg gaagatttgc agttaaagat ggctaccatc .
                                                                        2040
 agggaagaga teageatetg tgteagtett etgtaegget eeatgggatt aaaggaagea -
                                                                        2100
 atgacatect gatetyttee ttgatetttg ggeattggag ttggegagag gtgteagaae
                                                                        2160
aaagagaaca tottactgaa aacaagttca taagatgaga aaaatotacg agottottat
                                                                        2220
 ttacaacact gctgccccct ttcctcccag actctgacat ggatgttcat gcaacttaag
                                                                        2280
tgtgttgttc ctgaactttc tgtaatgttt cattttttaa atctgacaaa ctaaaaagtt
                                                                        2340
taacgtcttc taaaagattg tcatcaacac cataatatgt aatctccagg agcaactgcc
                                                                        2400 -
tgtaattttt atttatttag ggagttacat aggtgatggg ggaaattgtt aactaccttt
                                                                        2460
cattttcctg ggaagtcaag gttacatctt gcagaggttg ttttgagaaa aaagggccct
                                                                        2520
tctgagttaa ggagccatag ttctatcaat gatcaaaaga aaaaaaaaa aactcgatcg
                                                                       2580
gcacgagggg gggcccggta cccaattcgc cctatgggan tcgaatgaga cc
                                                                       2632
<210> 111
<211> 2249
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1579)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2226)
<223> n equals a,t,g, or c
<400> 111
gaatteggea egageteace gtgetgegtg acacaaggee ageetgegee taegageeea
                                                                         60
tggactttkt ratggccctc atctacgaca tggtactgsw tgtggtcacc ctggggctgg
                                                                        120
cectetteae tetgigegge aagtteaaga ggiggaaget gaacggggee tieeteetea
                                                                        180
tcacagcctt cctctctgtg ctcatctggg tggcctggat gaccatgtac ctcttcggca
                                                                        240
atgtcaaget geageagggg gatgeetgga aegaeeeeae ettggeeate aegetggegg
                                                                        300
ccagegetgg gtettegtea tettecaege catecetgag atecaetgea ceettetgee
                                                                        360
agecetgeag gagaacaege ceaactaett egacaegteg cageceagga tgegggagae
                                                                        420
ggccttcgag gaggacgtgc agctgccgcg ggcctatatg gagaacaagg ccttctccat
                                                                        480
ggatgaacac aatgcagctc tccgaacagc aggatttccc aacggcagct tgggaaaaag
                                                                        540
acccagtggc agcttgggga aaagacccag cgctccgttt agaagcaacg tgtatcagcc
                                                                        600
aactgagatg geegtegtge teaaeggtgg gaecateeea aetgeteege caagteaeae
                                                                        660
aggaagamac ctttggtgaa agactttaag ttccagagaa tcagaatttc tcttaccgat
                                                                        720
ttgcctccct ggctgtgtct ttcttgaggg agaaateggt aacagttgcc gaaccaggcc
                                                                        780
gcctcacagc caggaaattt ggaaatccta gccaaggga tttcgtgtaa atgtgaacac
                                                                        840
tgacgaactg aaaagctaac accgactgcc cgcccctccc ctgccacaca cacagacacg
                                                                        900
taataccaga ccaacctcaa tccccgcaaa ctaaagcaaa gctaattgca aatagtatta
                                                                        960
ggctcactgg aaaatgtggc tgggaagact gtttcatcct ctggggggtag aacagaacca
                                                                       1020
aattcacage tggtgggcca gactggtgtt ggttggaggt ggggggctce cactcttate
                                                                       1080
```

```
1140
acctetece ageaagtget ggaeeecagg tageetettg gagatgaeeg ttgegttgag
                                                                     1200.
gacaaatggg gactttgcca ccggctttgc ctggtggttt gcacatttca ggggggtcag
gagagttaag gaggttgtgg gtgggattcc aaggtgaggc ccaactgaat cgtggggtga
                                                                     1260
gctttatage cagtagaggt ggagggacce tggcatgtge caaagaagag gecetetggg
                                                                     1320
                                                                     1380
tgatgaagtg accatcacat ttggaaagtg atcaaccact gttccttcta tggggctctt
                                                                     1440
gctctagtgt ctatggtgag aacacaggcc ccgccccttc ccttgtagag ccatagaaat
attetggett ggggeageag tecettette cettgateat etegecetgt tectacaett
                                                                     1500
1560
tggggtetee agetgaaans eecteeggga ggeaggttgg aaggeaggea eeaeggeagg
                                                                     1620
ttttccgcga tgatgtcacc tagcagggct tcaggggttc ccactaggat gcagagatga
                                                                     1680
cctctcgctg cctcacaagc agtgacacct cgggtccttt ccgttgctat ggtgaaaatt
                                                                     1740
cctggatgga atggatcaca tgagggtttc ttgttgcttt tggagggtgt gggggatatt
                                                                     1800
                                                                     1860
ttgttttggt ttttctgcag gttccatgaa aacagccctt ttccaagccc attgtttctg
                                                                     1920
teatggttte catetgteet gageaagtea tteetttgtt atttageatt tegaacatet
                                                                     1980
eggecattea aageeceeat gttetetgea etgtttggee ageataacet etageatega
ttcaaagcag agttttaacc tgacggcatg gaatgtataa atgagggtgg gtccttctgc
                                                                     2040
agatactcta atcactacat tgctttttct ataaaactac ccataagcct ttaaccttta
                                                                     2100
aagaaaaatg aaaaaggtta gtgtttgggg gccgggggag gactgaccgc ttcataagcc
                                                                     2160
agtacgtctg agctgagtat gtttcaataa accttttgat atttctcaaa aaaaaaaaa
                                                                     2220
aaaaancccg gggggggcc cggacctgg
                                                                     2249
<210> 112
<211> 2198
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (123)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (621)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (640)
<223> n equals a,t,g, or c
<400> 112
gatactataa ggcaagtgac tcacgggtgc gccgttagac tagtggatcc cgggtgcagg
                                                                       60
aatteggeag agegeegeeg gageegaagt getggegeee eegeggeege tgeeteegeg
                                                                      120
gancccaaaa tcatgaaagt caccgtgaag accccgaaga aaaggaggaa ttcgccgtgc
                                                                      180
                                                                      240
ccgagaatag ctccgtccag cagtttaagg aagaaatctc taaacgtttt aaatcacata
                                                                      300
ctgaccaact tgtgttgata tttgctggaa aaattttgaa agatcaagat accttgagtc
agcatggaat tcatgatgga cttactgttc accttgtcat taaaacacaa aacaggcctc
                                                                      360
aggatcattc agctcagcaa acaaatacag ctggaagcaa tgttactaca tcatcaactc
                                                                      420
ctaatagtaa ctctacatct ggttctgcta ctagcaaccc ttttggttta ggtggccttg
                                                                      480
ggggacttgc aggtctgagt agcttgggtt tgaatactac caacttctct gaactacaga
                                                                      540
gtcagatgca, gcgacaactt ttgtctaacc ctgaaatgat ggtccagatc atggaaaawc
                                                                      600
ccyttgttca gagcatgctc ntcaaatcct gacctgatgn agacagttaa ttatggccaa
                                                                      660
                                                                      720
tocacaaatg cagcagttga tacagagaaa toccagaaat tagtcatatg ttgaataatc
                                                                      780
cagatataat gagacaaacg ttggaacttg cccaggaatc cagcaatgat gcaggagatg
                                                                      840
atgaggaacc aggaccgagc tttgagcaac ctagaaagca tcccaggggg atataatgct
```

ttaaggcgca tgtacacaga tattcaggaa ccaatgctga gtgctgcaca agagcagttt

```
ggtggtaatc catttgcttc cttggtgagc aatacatcct ctggtgaagg tagtcaacct
                                                                       960
tecegtacag aaaatagaga tecaetacee aatecatggg etecaeagae tteecagagt
                                                                       1020
tcatcagctt ccagcggcac tgccagcact gtgggtggca ctactggtag tactgccagt
                                                                       1080
                                                                       1140
ggcacttctg ggcagagtac tactgcgcca aatttggtgc ctggagtagg agctagtatg
                                                                       1200
ttcaacacac caggaatgca gagcttgttg caacaaataa ctgaaaaccc acaacttatg.
                                                                       1260
caaaacatgt tgtctgcccc ctacatgaga agcatgatgc agtcactaag ccagaatcct
gaccttgctg cacagatgat gctgaataat cccctatttg ctggaaatcc tcagcttcaa
                                                                       1320
gaacaaatga gacaacagct cccaactttc ctccaacaaa tgcagaatcc tgatacacta
                                                                       1380
                                                                       1440
tragraatgt caaaccttag agraatgrag goottgttac agattragra gggtttacag
                                                                       1500
acattagcaa cggaagcccc gggcctcatc ccagggttta ctcctggctt gggggcatta
                                                                       1560
ggaagcactg gaggetette gggaactaat ggatetaacg ceacacetag tgaaaacaca
agtoccacag caggaaccac tgaacctgga catcagcagt ttattcagca gatgctgcag
                                                                       1620
                                                                       1680
getettgetg gagtaaatee teagetacag aateeagaag teagatttea geaacaactg
                                                                       1740
gaacaactca gtgcaatggg atttttgaac cgtgaagcaa acttgcaagc tctaatagca
acaggaggtg atatcaatgc agctattgaa aggttactgg gctcccagcc atcatagcag
                                                                       1800
catttctgta tctkgaaaaa atgtaattta tttttgataa cggctcttaa actttaaaat
                                                                       1860
acctgettta ttteattttg actettggaa ttetgtgetg ttataaacaa acceaatatg
                                                                       1920
atgcatttta aggtggagta cagtaagatg tgtgggtttt tctgtatttt tcttttctgg
                                                                       1980
aacagtggga.attaaggcta ctgcatgcat cacttctgca tttattgtaa ttttttaaaa
                                                                       2040
acatcacctt ttatagttgg gtgaccagat tttgtcctgc atctgtccag tttatttgct
                                                                       2100
ttttaaacat tagcctatgg tagtaattta tgtagaataa aagcattaaa aagaagcaaa
                                                                       2160
                                                                       2198
aaaaaaaaaa aaaaattoot gogooogoga attottot
<210> 113
<211> 1043
<212> DNA
<213> Homo sapiens
<400> 113
                                                                         60
ctgaagtgta tgtggtgagg aagaagaggc tcctactgta gacagccttg ttctacagat
cctcccagaa atctctgggc caggtggaac ccagggtcag agagggatgg gagagaggtt
                                                                        120
taattttcca tgataaataa aaatctataa aataataaac aagagaaaag agattggaaa
                                                                        180
cagccaggtt ggagcagtga gtgagtaagg aaacctggct gccctctcca gattccccag
                                                                        240
                                                                        300
gctctcagag aagatcagca gaaagtctgc aagaccctaa gaaccatcag ccctcagctg
cacctcctcc cctccaagga tgacaaaggc gctactcatc tatttggtca gcagctttct
                                                                        360
                                                                        420
tgccctaaat caggccagcc tcatcagtcg ctgtgacttg gcccaggtgc tgcagctgga
                                                                        480
rgacttggat gggtttgagg gttactccct gagtgactgg ctgtgcctgg cttttgtgga
aagcaagttc aacatatcaa agatwaatga aaatgcagat ggaagctttg actatggsct
                                                                        540
cttccagatc aacagccact actggtgcaa crattataag agttactcgg aaaacctttg
ccacgtagac tgtcaagatc tgctgaatcc caaccttctt gcaggcatcc actgcgcaaa
                                                                        660
aaggattgtg tooggagcao gggggatgaa caactgggtt agaatggaag kttgcactgt
                                                                        720
                                                                        780
tcaggccggc cactcttcta ctggctgaca ggatgccgcc tgagatkaaa carggtgcgg
                                                                        840
gtgcaccgtg gartcattcc aagactcctg tcctcactca rggattcttc atttcttctt
                                                                        900
cctactgcct ccacttcatg ttattttctt cccttcccat ttacaactaa aactgaccag
agccccagga ataaatggtt ttcttggctt cctccttact cccatctgga cccagtcccc
                                                                        960
tggttcctgt ctgttatttg taaactgagg accacaataa agaaatcttt atatttatcg
                                                                       1020
                                                                       1043
aaaaaaaaa aaaaaaaact cga
<210> 114
<211> 703
<212> DNA
<213> Homo sapiens
<400> 114
gaatteggea egagtgegeg ggeaceaegg eggttttteg aegetggegg tggaegeagg
                                                                         60
                                                                        120
cagcatggac cacggttgct gggcggatgg ggagcgtcta tggtcagttg ccttagaagt
```

```
ggtgagatgg gaagctgcag ttggaagacc ctggaggatg cctgacaagg ggatgtctga
                                                                     180
                                                                     240
cacatgattg gagetetttt tgaaatgttt ettgeeette etggageaga ggageeatta
                                                                     300
titatgcagg tacatcgaag tettitgace tecatacagt gattatgett gicategetg
                                                                     360
gtggtateet ggeggeettg etectgetga tagttgtegt getetgtett taetteaaaa.
tacacaacgc gctaaaagct gcaaaggaac ctgaagctgt ggctgtaaaa aatcacaacc
                                                                     420
cagacaaggt gtggtgggcc aagaacagcc aggccaaaac cattgccacg gagtcttgtc
                                                                     480
                                                                     540
ctgccctgca gtgctgtgaa ggatatagaa tgtgtgccag ttttgattcc ctgccacctt
gctgttgcga cataaatgag ggcctctgag ttaggaaagg tgggcacaaa aatcttcatg
                                                                     600
agcaatactt cttagtagat tgttttgtta ttcaaatcaa gttctagtgt ttttatgtga
                                                                     660
                                                                     703
gattatataa tttacagtgt tgttttatat acttttgaat aaa
<210> 115
<211> 3684
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (79)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2297)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (3679)
<223> n equals a,t,g, or c
<400> 115
ggcagagggg gcatgagcag gaggaggatt accgctacga ggtgctcacg gccgagcaga
ttctacaaca catggtggna atgtatccgg gaggtcaacg aggtcatcca gaatccagca
                                                                     120
actatcacaa gaatactcct tagccacttc aattgggata aagagaagct aatggaaagg
                                                                     180
                                                                     240
tactttgatg gaaacctgga gaagctcttt gctgagtgtc atgtaattaa tccaagtaaa
aagtetegaa cacgecagat gaatacaagg teateageae aggatatgee ttgteagate
                                                                     300
                                                                     360
tgctacttga actaccctaa ctcgtatttc actggccttg aatgtggaca taagttttgt
                                                                     420
atgeagtget ggagtgaata tttaactace aaaataatgg aagaaggeat gggteagaet
                                                                     480
atttcgtgtc ctgctcatgg ttgtgatatc ttagtggatg acaacacagt tatgcgcctg
atcacagatt caaaagttaa attaaagtat cagcatttaa taacaaatag ctttgtagag
                                                                     540 .
                                                                     600
tgcaatcgac tgttaaagtg gtgtcctgcc ccagattgcc accatgttgt taaagtccaa
                                                                     660
tatectgatg etaaacetgt tegetgeaaa tgtgggegee aattttgett taaetgtgga
                                                                     720
gaaaattggc atgatcctgt taaatgtaag tggttaaaga aatggattaa aaagtgtgat
                                                                     780
gatgacagtg aaacctccaa ttggattgca gccaacacaa aggaatgtcc caaatgccat
                                                                     840
gtcacaattg agaaggatgg tggttgtaat cacatggtct gtcgtaacca gaattgtaaa
                                                                     900
gcagagtttt gctgggtgtg tcttggccca tgggaaccac atggatctgc ctggtacaac
                                                                     960
tgtaaccgct ataatgagga tgatgcaaag gcagcaagag atgcacagga gcgatctagg
gragecetge agaggtacet gttetactgt aategetata tgaaccacat gragageetg
                                                                    1020
cgctttgagc acaaactata tgctcaggtg aaacagaaaa tggaggagat gcagcagcac
                                                                    1080
aacatgtcct ggattgaggt gcagttcctg aagaaggcag ttgatgtcct ctgccagtgt
                                                                    1140
cgtgccacac tcatgtacac ttatgtcttc gctttctacc tcaaaaagaa taaccagtcc
                                                                    1200
attatetttg agaataacca ageagateta gagaatgeca cagaggtget etegggetae
                                                                    1260
                                                                    1320
tacagatact gtgagagtcg acgaagggtt ttgttacagc atgtgcatga aggctatgaa
                                                                    1380
aaagatctgt gggagtacat tgaggactga gaatggccct gcataaaatg aactctgaaa
                                                                    1440
                                                                    1500
```

```
aagcctattc tgacaccact ggtctgtagt accagaattg ttttgttaat ggaaagttta
                                                                       1560
                                                                       1620
agtaaattat attgtaataa aaaggtagat aaaccattgt acaacagtat tctaggccgc
                                                                       1680
caacaaaagt gtgacagaca cactaaaagc cctccaactt taacttgtaa cgtagcttca
ttctcaaagc tgactccttt tttttctttt tccttttcct gagtgtagta cagttaaaat
                                                                       1740
ttcaaacage teettgacae tgetttteat gttcaaacca gecattitigt tgtactttgg
                                                                       1800
                                                                       1850
taaaggacct cttccccttc ctcccctaca catacagata cacccacaca cagactgact
ctctttctct cataccccaa ggtcatgagt gaatgatgct tagttccttg taaagaaaat
                                                                       1920
                                                                       1980
cttgggatgg ggaaaggggt aggcagcaag aggattcaac aaacgaaaaa cataaaaact
                                                                       2040
ttgtatatga cttttaaaac aagaggacaa cacagtattt ttcaaaattg tatatagcgc
                                                                      2100
atatgcatgg acaaagcaag cgtggcacgt gtttgcataa tgtttaatta caaaaaaata .
tttattcttt aaaaatcttc aagattatgt ctatttgctg tgcattttct ttcagtttgc
                                                                      2160
ttatctttcc cgggttgggg ttgggataaa ggtgtgtcgg tttagcacct ctggaagacc
tatctagagc tettteactt teetgaggtt attttgecey ttetggtgtt ggtatgtetg
                                                                      2280
                                                                      2340
ttgccggcca tgggctncay gccttgaatt cctgctcttg atcagggaca agggaggtca
                                                                      2400
agctctgact aatgccatga cctgattaag gggtacagca gggagttttg ttgctacagc
tcatgaatta acctgtccca acctaatccc cctccatggc atcatgcctc tacccaagcc
                                                                      2460
                                                                      2520
tttgtgtgcc catgttatgc acacagctgt aggcattctt aagtcccctg tcgcatccag
tggaagcatt ttaaaatttc ttttactttt tggttttccc ttaattgctg cttttcagat
                                                                      2580
tttagttatg gctcgtctgc tcaccccttc tctacattag ggtgtcaaag agaatgtttt
                                                                      2640
                                                                      2700
gctttaaata taaatagcca ttcatttagt ctcagattgt gaatttaaaa tggtggatac
                                                                      2760
cgaaattgct tgtgtgtgtt gctgtgggtt tggtttgaag gcaaacaccc ctagaacatg...
                                                                      2820
atattcccat ctagtgcatt taaatagaaa tcactgagtt tgctgctttt ttattgtcag
                                                                      2880
cagataggag aattaataat gcattttagc tgtgatgtcc atttttatga aattcctact
                                                                      2940
aagagctatg ttaaaagtaa aggatggtgg tggttgtatt aactatatac ctgtttaggc
                                                                      3000
cattctggct gtggtatttt tcaataggtc agcatctgta aatctgtcag ttttatacag
gagtgcagag tgaactaggc aactagatta agaggtctaa atatgaaata ccagttgagg
                                                                      3060
                                                                      3120
ctgaggacct cttcgtcttc ctttaaatgt cttttgccta gggagtgttt accatttgtg
aggragettt gtetgetett acactgtaca teetattaet ceattgggaa gtaggtteae
                                                                      3180
tttcctctgg ccttttgcct aagttaggct ttgctgaatc aaccctactt ttccttttag
                                                                      3240
aaaaggttgt tacaggagat ttactggcaa ctgttctttt cccatcaaaa atcagtgaat
                                                                      3300
                                                                      3360
gtttgctgag tataaatgct gcttccttaa accacttgtc gctttaggat caactttacc
tgtacctttt ctcctttcct cccttgccac ctcaggtgca aatctgaact cagtgtctgc
                                                                      3420
ttottccatt ttotcgtotc totcccotct tcccccatta tccatatgac attattttac
                                                                      3480
ttcaaatgac agcatcaatc ttaaaaagat atacattaaa actaaggagt tttttaaag
                                                                      3540
                                                                      3600
aaagcctgaa taagttcctt tccctggtaa ctttgaaaag cagtcagagt tgctatatag
atatatgtgg ctcctttaaa atgctttgtg tatgtgtggt gtttaaaaaa aaaaaaaaa
                                                                      3660
                                                                       3684
ttcgggggg ggcccggtnc ccat-
```

```
<210> 116
<211> 1965
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (51)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (476)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1136)
<223> n equals a,t,g, or c
```

```
<400> 116
                                                                         60
 aagaaagggt attaaaatte tagateacat atggaeeegg gaaggttttt naeeetetgt
                                                                        120
 tagtgacatc gagtctccca ctagacaaaa taggtggaaa aatctctcga gggctcacat
 tgttttgtca tcttcaggaa aaacaccacc aggccatacc acagcctgcc cagtgaggcg
                                                                        180
                                                                        240
 gtctttgcca acagcaccgg gatgctggtg gtggcctttg ggctgctggt gctctacatc
 cttctggctt catcttggaa gcgcccagag ccggggatcc tgaccgacag acagcccctg
                                                                        300
                                                                        360
 ctgcatgatg gggagtgaag cagcaggaag gggctcccaa gagctcctgg tggtgcagcc
                                                                        420.
 tgtgctcccc tcagaagetc tgctcttccc agggctcccg gctggtttca gcaggcgact
                                                                        480
 ttcttccaat gctgggccca gacttcttgc ctgggtgctg gcctgccctc tccggnccgc
                                                                        540
 ttgctgcctg tctgctttcc ttggtggytt tgctgggtgc tgggcctgcc ctctccggcc
 gettgetgee tgtetgettt cettggtgge tttgetgggt getgggeetg cettetetgg
                                                                        600
                                                                        660
 ctgcttgctg cctgtctgct ttccttggtg gctttggctt ctgcactcct tggcgtcasc
                                                                        720
 totcaggtco tocattcaca ogaggtcoto otogototgg cogotottgo tgotoctgto
                                                                        780
 tgaagawatc agactgattt cctcttaaga ctcctaggga tgtggtgaag agctgggact
                                                                        840
caagtgcagt ccacggtgtg aaacatgagg gargtgaggt gtccgtccac ttcccccata
                                                                        900
 aaggtgtgca tttcagttag gctgcccgc cacagagcag gcttcatctg ctctgccatc
                                                                        960
 cagococato tygatytyay ytygygytyga gacatoatyg gytyatiyoa gaaayyyyya
 gtggcggccc acgcagcttc tgctgaggag ctgaccgctc tgagctgttc tgtttcgtat
                                                                       1020
 tgctgctctg tgtctgcatg tattgtgacc gtgcggctcc acctettcca gctgctgcta
                                                                       1080
 cagetgagge etggateceg geettteeet gtgaettaeg tgtetgteae eggeangeag
                                                                       1140
 ccctacaaat cctggtgacc tgctctccca agaacagagc ctgtccccag atgtcccagt
                                                                       1200
 agogatgagt aacagaggtg gotgtggact toototactt otcottgotg gatcagggoo
                                                                       1260
                                                                       1320
 tteetgeete eegetgggea ggtetggeet tgetetettg geagggeece ageceetetg
, accactctgc agctcaccat gcagctgatg ccaaagttgt ggtgtccagt gtgcagcagc
                                                                       1380
 cctgggagcc actgccacct tcagaggggt tccttgctga gacccacatt gcttcacctg
                                                                       1440
 gececaceat ggetgettge etggeceaac etagegttet gtgecatget agagettgag
                                                                       1500
 ctgttgctct tcttcagggg aggaaatagg gtggagagcg ggaagggtct tgctcctaag
                                                                       1560
 tgttgctgct gtggcttttt tgccttctcc aaagacgcac tgccaggtcc caagcttcag
                                                                       1620
                                                                       1680
 actgctgtgc ttagtaagca agtgagaagc ctggggtttg gagcccacct actctctggc
 agcatcagca tectactect ggeaacatea ggecaacgte caccecagee teacattgee
                                                                       1740
 agatgttggc agaagggcta atattgaccg tcttgactgg ctggagcctt caaagccact
                                                                       1800
                                                                       1860
 gggatgtcct ccaggcacct gggtcccatg accagctccc cgtctccata ggggtaggca
                                                                       1920
 tttcactggt ttatgaagct cgagtttcat taaatatgtt aagaatcaaa gctgtctttg
                                                                       1965
 ttcaggctgc tataacaaaa atataatagc ctgggtggct taaac
 <210> 117
 <211> 503
 <212> DNA
 <213> Homo sapiens
 <400> 117
                                                                         60
 agtgatcccc ttgcctcggc ctcccaaaat gctggaattg taagcgtggg cctctgcacc
 cggcctggtc cgcaatttaa aaacgcacag ccaccattcc ctytccagaa agcacccaga
                                                                        120
 tgcctttggg agaaccagcc tcctccatgg aggaaagctt gggatctgcc ttcccacctg.
                                                                        180
                                                                        240
 gggaggagag ggatctgtgg aaaatccttc tgacggactt cccctcagtg cctgatccat
                                                                        300
 actcaatagt agaaaaagta agaaatatac aaagatagca gatacacgga gacagttccc
                                                                        360
 caaatagctg agcgawtagc gcagaagcaa tattgaagac ctaatagctg agacatttcc
 agaactgata aagtgcatcc agccacagat caagcagccc agaaaattcc aggcagcatc
                                                                        420
 aacaaataaa tagccccaca tgcacccgtg aaaatgcaga agaccaaaca aaaaagtccg
                                                                        480
                                                                        503
 gtcaacagcc agagttaaag agg
```

<210> 118

<211> 1071

<212> DNA

<213> Homo sapiens

```
<400> 118
 tegacecaeg egteeggtea eteceaagat ggeggaeeta etgggeteea teetgagete
                                                                        60
 catggagaag ccacccagcc tcggtgacca ggagactcgg cgcaaggccc gagaacaggc
                                                                       120
 cgcccgcctg aagaaactac aagagcaaga gaaacaacag aaagtggagt ttcgtaaaag
                                                                       180.
                                                                       240
 gatggagaag gaggtgtcag atttcattca agacagtggg cagatcaaga aaaagtttca
 gccaatgaac aagatcgaga ggagcatact acatgatgtg gtggaagtgg ctggcctgac
                                                                       300
 atccttctcc titggggaag atgatgactg tcgctatgtc atgatcttca aaaaggagtt
                                                                      360
 tgcaccctca gatgaagage tagactetta cegtegtgga gaggaatggg acceccagaa
                                                                       420
 ggctgaggag aagcggaagc tgaaggagct ggcccagagg caagaggagg aggcagccca
                                                                       480
 gcaggggcct gtggtggtga gccctgccag cgactacaag gacaagtaca gccacctcat
                                                                       540
cggcaaggga gcagccaaag acgcagccca catgctacag gccaataaga cctacggctg
                                                                       600
 tgtgcccgtg gccaataaga gggacacacg ctccattgaa gaggctatga atgagatcag
                                                                       660
agccaagaag cgtctgcggc agagtgggga agagttgccg ccaacctcct aggcgccccg
                                                                      720
 cccagctccc tttgacccct ggggcagggc aggggcagg gagagacaag gctgctgcta
                                                                       780
 ttagagccca tcctggagcc ccacctctga accacctcct accagctgtc cctcaggctg
                                                                       840
ggggaaaaca ggtgtttgat ttgtcaccgt tggagcttgg atatgtgcgt ggcatgtgtg
                                                                       900
                                                                       960
 tgtgtgtgtg agagtgtgaa tgcacaggtg ggtatttaat ctgtattatt ccccgttctt
                                                                      1020
ggaattttet tycccatggg getggggtae tttacattca ataaatactg tttaacccaa .
                                                                      1071
 <210> 119
<211> 1101
<212> DNA
<213> Homo sapiens
<22Ó>
<221> SITE
<222> (147)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (376)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (395)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1101)
<223> n equals a,t,g, or c
<400> 119
gggcacaget gaagetgeag aceteedeag gggatggete eteteedea ggageddga
                                                                        60
                                                                      120
ggcaggggag gcagaaagcc tgggctctgg ggggtggcct gcggacagct gtgctgtggg
ccgggggctg ggcctgtccc acagggncgt ggagctcgtg gttctgagca gccagctggg
                                                                       180
tggtgtctgg ggatagctgg gaggcacagc ggctgccatg tgggactggg actggagtgc
                                                                       240
                                                                       300
tecetggtet tggeetetgt ggeteageet tgetetggte tgeetgagtg caggggeeaa
ggggcacagg gccagtgagg ccggccacgc tcgggccctc acctgtgaga tggggtcgga
                                                                       360
                                                                       420
atttkacaca gcctanggct tggttcttgg tkgtngamcg tggactyctk agaacgggag
tgctggtcct gaaaggcgtg gttggagacc agctgctttt ctcgctgttt ttctcttagg
                                                                       480
                                                                       540
agattaaaca aaaacagaaa gcacaagacg aactcagtag cagaccccag actctcccct
                                                                       600
tgccagacgt ggttccagac ggggagacgc acctegteca gaacgggatt cagetgetea
```

```
acgggcatge geegggggee gteecaaace tegeaggget ecageaggee aaceggcace
                                                                         660
                                                                         720
 acggactect gggtggegee etggegaact tgtttgtgat agttgggttt geageetttg
                                                                         780
 cttacacggt caagtacgtg ctgaggagca tcgcgcagga gtgaggccca ggcgccgaga
                                                                         840
 cccaaggege cactgaggge accgegeace agagegtgae eteggeagge tggaeacaet
 gcccagcaca ggcagaccca ccaggetect aggtttaget tttaaaaaacc tgaaagggga
                                                                         900
                                                                         960
 agcaaaaacc aaaatgtgtg actgggcttt ggaggagact ggagcctcag ccctgtcctg
 gccacgggcc gctggggctg gtgtgggtgg gccttgtgtg ctggatttgt agcttatctt
                                                                        1020
 ccgtgttgtc tttggacctg ttttagtaaa cccgtttttc attttaaaaa aaaaaaaaa
                                                                        1080
                                                                        1101
 aaactttggg ggggggcccc n
 <210> 120
 <211> 282
 <212> DNA
 <213> Homo sapiens
 <400> 120
                                                                          60
 agettetetg tecagtettg aactetgggs tetettggaa ettteeteac eceteteage
 ctgaatattc cttccatgga ttccactcaa ccagactttg gatctgtgcc tacttaatca
                                                                         120
                                                                         180
 accttatett tgeaatatgt tegggeeeae etteeaetee ttggttettg tteeteettg
                                                                         240
 gestaactty tesettetes actteacate eccygtygya cagcattest estteetese
                                                                         282
 aacctccctc cgtctcaraa aaaaaaaaaa aaaaaaaaa tt
 <210> 121
 <211> 2635
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE -
 <222> (2605)
 <223> n equals a,t,g, or c
 <400> 121
                                                                          60
 taagggggtg tgtgctcacc tcctcctgac ccttaacact cctgtcctgc ccagaccaac
                                                                         120
 agagagaget gtccctgaga ccccggagag aagcagetge cgaaagetge agcettteeg
                                                                         180
 cactetgaga ccatgatett ceteetgeca ggggagagee acceacagge catgtecage
                                                                         240
 cccacttccc tcagccccca gggyttcctt ctggcccctc tgaggattcc ctagggctgc
                                                                         300
 cccgcagagg ggyttcccca agctctgttt tgaagcctgc aatgtggaaa agtgagaagt
                                                                         360
 cagagggaac aggacaggtg cagccgggct ctgaggccac acctcacacc tcgctgttcc
                                                                         420
 ccaacatccc ctgagcagtg tgagctcatc tcaccagatg agaagaggcc ctgtgcattt
                                                                         480
 yttttgtttg tttgttgctg ttttccccca cccatccagt tctcctcagc aaagcaaatt
 cettaacace titiggiggag aattitettae ceagacitigg ggetgigatg ceetteagig
                                                                         540
 cgtggtgagt gcagcgtgtg tgcgtgtgcc tgtgtgtgaa cctgggggcc atcctggtgg
                                                                         600
 cctgggagcg tgaggagagg cccctgtgt gctgggtgag tggtgggtgt ggggtcaatg
                                                                         660
                                                                         720
 cagtgagget etetgggtga ggeteceaae etggeagtee ceageeteee ageatetgtg
 agegtetgtt ggaetttaca gaagageete atecygtetg ecceteaete tgeeetggaa
                                                                         780
                                                                         840
 tcaacatctt ccgagtcctt cttgggggaa atagcagagc cccacttaac tccataaact
                                                                         900
 getteceatt eegeageeea gttetgattg ttgaggtgte gegtegttee aggteeeeea
                                                                         960
 gtcccctctt tctcctgtcc tctctctgtc cttcacctcc ccactccage cccggctcag
ttcagggaaa tgctgttcca yatcagccct ctgctctctg aggcagccgc gcctctgact
                                                                        1020
                                                                        1080
 eggagetact tgaaacttet getettgeta ggattggagt etacetatet ettecatttg
                                                                        1140
 toccagotgg agttotggaa ctttoctoot oggggtgggg gtgggggttg ttaaggatgo
 tggggggcct ggggaaggaa ggagttcaga ggaagggtgt cccctgtcct cttgatgtca
                                                                        1200
                                                                        1260
 contaggets obgggadacg tgotototot gtototgggt ottotggotg tgoacgtttg
 tgtgtccttg taaatatgtt ttaggaagaa agcaaaaggg actgaactag cetetggtag
                                                                        1320
                                                                        1380
 gattgcaggg gtccagcctt gcctgtttcc gaagccccca cactgccttt cgccccactg
```

<223> n equals a,t,g, or c

```
agactggtcc cctcaaaagg tagacaaaac agcagctccc tgtggagctg aagggcggcc
                                                                       1440
                                                                       1500
tcaaagtggc tttttgttag acaaggttaa ggtttcctca tgagcaaggt tgcagatcgg
teetteetea geteettgat ttgtgaeett gaecaagggg cetgeeacec ageceeteea
                                                                       1560
gtgccctctc ctcgatgcct cgctccttcc tgcccccact cccctggctt aggcaggtag
                                                                       1620
                                                                       1680
gggaattagg gccatgctgg aagaagctta accatgtgtt caaagaacgg tttcttgctt
gettggteet ggaacteece ttggetgeec eaggeeteet tggeecatgg gtgetgggg
                                                                       1740
aggtggatgt cagatctggt aggttgcagc agagaaaata aatgtgcctt gagagaccac
                                                                       1800
tcagagaggg tccaagggtg atggagaagg aagcatggcc tgggagcttg gaagggargg
                                                                       1860
gtggtgggtg gcggcatctt gactgccccc tgttgtccca cacgtggggg gtggtcaccc
                                                                       1920
cycttcactc cagcccgcct gccttcagcc ttccatgagc ttcacctgct tccaacttca
                                                                       1980
ctttggaggg ggtgggtcc gttggcatca acacggggac cctctgcttc accaaagccc
                                                                       2040
gageceteag eeeetgggga gaacaaatgg etgagetttg atacetgggg tegtegagag
                                                                       2100
gctgcgggct ggcggcagtc ccaggggaga gacaccacag aaggagaccc agacatcccg
                                                                       2160
aggaagttcc cagcagagca aactgctttc cagcctgaag cctgcttaaa ctgtgtgatg
                                                                       2220
tgcaataact gagcttagag ttaggaattg tgttcaagtg cttggatttc cgtctgtaga
                                                                       2280
tttaactgct gaaattgtat ctctcagtaa ttttagatgt cttttaaaaaa attgaaaaac
aaagtgttag actgtgtgcg tgtgcgttga tgggcactca agagtcccgt gagtcatcca
                                                                       2400
geoetgeett teeeetgege ecceateete teaegteeeg eccygeetee aettggggae
                                                                       2460
cctgcctcgt gtcgtcttta tctgcctatt actcagccta aggaaacaag tacactccac
                                                                       2520
acatgcataa aggaaatcaa atgttatttt taagaaaatg gaaaataaaa actttataaa
                                                                       2580
caccaaaaaa aaaaaaaaa acccnggggg ggggccggta acccatttcg cctaa
                                                                       2635
<210> 122
<211> 994
<212> DNA
<213> Homo sapiens
<400> 122
                                                                         60
gaattcggca gaggttcggc gaagataggg aataaggaag cacaggagta ggggagaagg
                                                                        120
aagcacagga gtaggggaga tatacagcgg tcaggataag ggggaaaggg cggtggttgc
scaagaggtg aaacaagatg tgagagacaa ggggtaggga agaaatgggg cagcggttag
                                                                        180
                                                                        240
gttcagaagc gcatagaccg tggcggacgg gcaatgcgag gggcacagaa aggaactgag
                                                                        300
gggtgggcta ttttaargga gatggtcctt cagccctctt yttttctgcg tagttctcct
                                                                        360
cctccaggcc gcgcgcgat atgtcgtccg gaaaccagcc cagtctaggc tggatgatga
cccacctcct tctacgctgc tcaaagacta ccagaatgtc cctggaattg agaaggttga
                                                                        420
tgatgtcgtg aaaagactct tgtctttgga aatggccaac aagaaggaga tgctaaaaaat
                                                                        480
                                                                        540
caaqcaaqaa caqtttatqa aqaaqattqt tqcaaaccca gaggacacca gatccctgga
                                                                        600
ggctcgaatt attgccttgt ctgtcaagat ccgcagttat gaagaacact tggagaaaca
                                                                        660
togaaaggac aaagcccaca aacgctatet gctaatgagc attgaccaga ggaaaaagat
                                                                        720
gctcaaaaac ctccgtaaca ccaactatga tgtctttgag aagatatgct gggggctggg .
                                                                        780
aattgagtac accttccccc ctctgtatta ccgaagagcc caccgccgat tcgtgaccaa
                                                                        840
gaaggetetg tgeatteggg ttttceagga gaeteaaaag etgaagaage gaagaagage
                                                                        900
cttaaaggct gcagcagcag cccaaaaaca agcaaagcgg aggaacccag acagccctgc
caaagccata ccaaagacac tcaaagacág ccaataaatt ctgttcaatc atttaaaaaa
                                                                        960
                                                                        994
aaaaaaaaa aaaaaaaaa aaaaagggga gggg
<210> 123
<211> 1542
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1445)
```

```
<220>
<221> SITE
<222> (1515)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1520)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1535)
<223> n equals a,t,g, or c
<400> 123
ggcasagcca cctcggcccc gggctccgaa gcggctcggg ggcgccettt cggtcaacat
cgtagtccac cccctcccca tccccagccc ccggggattc aggctcgcca gcgcccagcc
                                                                        120
agggagccgg ccgggaagcg cgatgggggc cccagccgcc tcgctcctgc tcctgctcct
                                                                        180
getgttegee tgetgetggg egeceggegg ggeeaacete teecaggaeg acageeagee
                                                                        240
ctggacatct gatgaaacag tggtggctgg tggcaccgtg gtgctcaagt gccaagtgaa
                                                                        300
agatcacgag gactcatccc tgcaatggtc ttaaccctgc tcagcagact ctctactttg
                                                                        360
gggagaagag agcccttcga gataatcgaa ttcagctggt tamctctacg ccccacgagc
                                                                        420
                                                                        480
tcagcatcag catcagcaat gtggccctgg cagacgaggg cgagtacacc tgctcaatct
teactatgee tgtgegaact gecaagteee tegteactgt getaggaatt ceacagaage
                                                                        540
ccatcatcac tggttataaa tcttcattac gggaaaaaga cacagccacc ctaaactgtc
                                                                        600
agtettetgg gageaageet geageeegge teacetggag aaagggtgae eaagaaetee
                                                                        660
acggagaacc aacccgcata caggaagatc ccaatggtaa aaccttcact gtcagcagct
                                                                        720
                                                                        780
eggtgacatt ceaggttace egggaggatg atggggegag categtgtge tetgtgaace
                                                                        840
atgaatctct aaagggagct gacagatcca cctctcaacg cattgaagtt ttatacacac
                                                                        900.
caactgcgat gattaggcca gaccctcccc atcctcgtga gggccagaag ctgttgctac
                                                                        960
actgtgaggg tcgcggcaat ccagtccccc agcagtacct atgggagaag gagggcagtg
                                                                       1020
tgccacccct gaagatgacc caggagagtg ccctgatctt ccctttcctc aacaagagtg
                                                                       1080
acagtggcac ctacggctgc acagccacca gcaacatggg cagctacaag gcctactaca
                                                                       1140
ccctcaatgt taatgacccc agtccggtgc cctcctcctc cagcacctac cacgccatca
teggtgggat egtggettte attgtettee tgetgeteat catgeteate tteettggee
                                                                       1200
actacttgat ccggcacaaa ggaacctacc tgacacatga ggcaaaaaggc tccgacgatg
                                                                       1260
                                                                       1320
ctccagacgc ggacacggcc atcatcaatg cagaaggcgg gcagtcagga ggggacgaca
                                                                       1380
agaaggaata titcatctag aggegeetge ceaetteetg egeeececag ggeeetgtgg
                                                                       1440
ggacttgctg gggccgtcac caacccggac ttgtacagag caaccgcagg ggccgsccct
                                                                       1500
cccgnttgtt ccccagccca cccacccct tgttacagaa tgtytkgttt ggggtgcggt
                                                                       1542
tttgtwattg, gtttnggatn ggggaaggga ggganggcgg gg
<210> 124
<211> 1390
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (498)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (499)
<223> n equals a,t,g, or c
```

```
<400> 124
caagetetaa taegaeteae tatagggaaa getggtaege etgeaggtae eggteeggaa
                                                                        60
ttcccgggtc gacccacgcg tccgggcctc agggtggacg catggttctg cactgaggcc
                                                                       120
etegteatgg tggegeetgt gtggtaettg gtageggegg etetgetagt eggetttate
                                                                       180
ctcttcctga ctcgcagccg gggccgggcg gcatcagccg gccaagagcc actgcacaat
                                                                       240
gaggagetgg caggageagg cegggtggee cageetggge ceetggagee tgaggageeg
                                                                     - 300
agagetggag geaggeeteg gegeeggagg gaeetgggea geegeetaea ggeeeagegt
                                                                       360
cgagcccagc gggtggcctg ggcagaagca gatgagaacg aggaggaagc tgtcatccta
                                                                       420
gcccaggagg aggaaggtgt cgagaagcca gcggaaaytc acctgtcggg gaaaattgga
                                                                       480
gctaagaaac tgcggaannt ggaggagaaa caagcgcgaa aggcccagck tgaggcagag
                                                                       540
gaggetgaac gtgargwgeg gaaacgaete gagteeeage gegaatgagt ggaagaagga
                                                                       600
660
ggagcaggcc cagcgggagc atgaggagta cctgaaactg aaggaggcct ttgtggtgga
                                                                       720
ggaggaaggc gtaggagaga ccatgactga ggaacagtcc cagagcttcc tgacagagtt
                                                                       780
catcaactac atcaagcagt ccaaggttgt gctcttggaa gacctggctt cccaggtggg
                                                                       840
cctacgcact caggacacca taaatcgcat ccaggacctg ctggctgagg ggactataac
                                                                       900
aggtgtgatt gacgaccggg gcaagttcat ctacataacc ccagaggaac tggccgccgt
                                                                       960
ggccaacttc atccgacage ggggccgggt gtccatcgcc gagettgccc aagccagcaa
                                                                      1020
eteceteate geetggggee gggagteece tgeecaagee ceageetgae eccagteett
                                                                      1080
ccctcttgga ctcagagttg gtgtggccta cctggctata catcttcatc cctcccacc
                                                                      1140
atcctgggga agtgatggtg tggccaggca gttatagatt aaaggcctgt gagtactgct
                                                                      1200
gagettggtg tggettggtg tggeagaagg cetggeetag gateetagat aageaggtga
                                                                      1260
aatttagget teagaatata teegagaggt ggggagggte eettggaage tggtgaagte
                                                                      1320
ctgttcttat tatgaatcca ttcattcaag aaaatagcct gttgcaaaaa aaaaaaaaa
                                                                      1380
aaaaactcga
                                                                      1390
<210> 125
<211> 1288
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1286)
<223> n equals a,t,g, or c
<400> 125
ggcgcgcggg tgaaaggcgc attgatgcag cctgcggcgg cctcggagcg cggcggasca
                                                                       60
gacgetgace aegtteetet ceteggtete eteegeetee ageteegege tgeeeggeag
                                                                      120
ccgggagcca tgcgacccca gggccccgcc gcctcccgc agcggctccg cggcctcctg
                                                                      180
ctgctcctgc tgctgcagct gcccgcgccg tcgagcgcct ctgagatccc caaggggaag
                                                                      240
caaaaggcgc atccggcaga gggaggtggt ggacctgtat aatggaatgt gcttacaagg
                                                                      300
gccagcagga gtgcctggtc gagacgggag ccctggggcc aatggcattc cgggtacacc
                                                                      360
tgggatccca ggtcgggatg gattcaaagg agaaaagggg gaatgtctga gggaaagctt
                                                                      420
tgaggagtcc tggacaccca actacaagca gtgttcatgg agttcattga attatggcat
                                                                      480
agatettggg aaaattgegg agtgtaeatt taeaaagatg egtteaaata gtgetetaag
                                                                      540
agttttgttc agtggctcac ttcggctaaa atgcagaaat gcatgctgtc agcgttggta
                                                                      600
tttcacattc aatggagctg aatgttcagg acctcttccc attgaagcta taatttattt
                                                                      660
ggaccaagga agccctgaaa tgaattcaac aattaatatt catcgcactt cttctgtgga
                                                                      720
aggactttgt gaaggaattg gtgctggatt agtggatgtt gctatctggg ttggcacttg
                                                                      780
ttcagattac ccaaaaggag atgettetac tggatggaat tcagtttete gcatcattat
                                                                      840
tgaagaacta ccaaaataaa tgctttaatt ttcatttgct acctcttttt ttattatgcc
                                                                      900
ttggaatggt tcacttaaat gacattttaa ataagtttat gtatacatct gaatgaaaag
                                                                      960
caaagctaaa tatgtttaca gaccaaagtg tgatttcaca tgtttttaaa tctagcatta
                                                                     1020
ttcattttgc ttcaatcaaa agtggtttca atattttttt tagttggtta gaatactttc
                                                                     1080
ttcatagtca cattototoa acctataatt tgggaatatt gttgtggtot tttgttttt
                                                                     1140
```

```
ctcttagtat agcattitta aaaaaatata aaagctacca atctttgtac aatttgtaaa
                                                                       1200
                                                                       1260
tgttaagaat tttttttata tctgttaaat aaaaattatt tccmacaacc ttaaaaaaaa
aaaaaaaaa aaaaaaaaa aaaaanaa
                                                                       1288
<210> 126
<211> 1517
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (159)
<223> n equals a,t,q, or c
<220>
<221> SITE
<222> (1123)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1510)
<223> n equals a,t,g, or c
<400> 126
                                                                         60
agtggcttaa aggcatcgtt ttagggatta ctgggaagta tcttcaaagt aatacatgag
aaacattcct tcctaaatcc tttattatat tgaatatcgt attaattggt tttcagaggt
                                                                        120
taaattaacc atgtattcct gcaataaatg tcacttgtnt cttgtatata atctttttta
                                                                        180
tatattaccg gattgattca ttagtatttt gttgaggatt tttgtgtcta tattcataag
                                                                        240
                                                                        300
agatgctggt ctgcagtttt ctttttttgt gataatctgg tttttgtatc agtaatacag
                                                                        360
gccccatgaa acgagttggg aagtgttcac ctctcttgta ttttttcaag agtttgtgaa
gaattgctat taattettta aatgtttggt agaatetace attgaaatea tgtgtcetgg
                                                                        420
getttttttt gagggaagtg ttetgataac taatteagta tetaettttt atagetetgt
                                                                        480
tragattttg cttrttcctg agttagtttt ggtaatttgt gtatctctag gartttgtcc
                                                                        540
atttcattta tctcatttgt tggcataaat taaactaaat ttggcctgag cctacctgta
                                                                        600
                                                                        660
tatcttgagt ccctctgtaa ggaactgtag cctaacttgt acataaacaa actgaaatcc
                                                                        720
taaattagga atgtagtttt tgtaacagct cctgagtctc aggcagtcac agcagycaag
totgtoaatt goaggotgot aactaagoag cocatgstoa aatgaggoaa aaacotttgo
                                                                        780
ttttaacaca tagtataget ttgtaateet tttettgeac actegggtaa tttetteett
                                                                        840
tttcattccc kgwattttcc akgaatatga rtctyccttt tttcccctcc tgtcagtcta
                                                                        900
                                                                        960
gctaatggtt tgtcaatttt gttgatcttt tgaaraacaa acctttggtt ccactttctt
gttgcatatg ctgartattc tcataattgg agtggaaagc tgatctttga ttacttattt
tacttagggc tgaggagttc atggacttcg caaaacctcc ttgaatctaa attgcatctt
ctttcctggt ttctgggctg aaacatgttt tttcccatct wanawaccct tggtcttttc
atkggcgatt aagactagag aaagttctag atmccttgtc cttttatgct gtcattttgt
                                                                       1200
ttaaaggett tetatgtagt aaaactatet atatagacaa aatagageet tgagttgtgg
                                                                       1260
tottgaattt gatcaacatg atttaccaca ttotgtactg gatatttott cacctgctgc
                                                                       1320
tactgtaaac cattttattc ttggatcttc tgtagagtat attatcacag gtacttttta
                                                                       1380
caggggtgtc taatcttttg gcttccctgg gcacattgaa agaagaagaa ttgtcttggg
                                                                       1440
ccacacatca aatacgctaa cactaataat agttgatgag ctaaaaaaaaa aaaaaaaaag
                                                                       1500
                                                                       1517
gcaaaaaagn cccaaaa
<210> 127
```

<211> 1073

<212> DNA

<213> Homo sapiens

```
<220>
<221> SITE
<222> (495)
<223> n equals a,t,g, or c
<400> 127
tgaatctatt ctttgaacat tctacaacaa gaattacatt atactgttat accagagtac
ttctgcagtg tgaaatagat tggtttggaa aatgaacctg gctttgctat aaattacatt
cacaggeett tttgcaaatg tgtaacttge ctatcaaagt agtttgtagg gcaaatgcag
                                                                      180
aatatatgtc tccatctggt aaagtacctt wtaytcatgt gggaaatcaa gtagtatcag
                                                                      240
                                                                      300
aacttggtcc aatagtccaa tttgttaaag ccaagggcca ttctcttagt gatgggctgg
                                                                      360
aggaagtcca aaaagcagaa atgaaagctt acatggaatt agtcaacaat atgctgttga
ctgcagagct gtatcttcag tggtgtgatg aagctacagt agggrmgatc actcatgmta
                                                                      420
                                                                      480
ggtatggwtc tccttaccct tggcctctgw wtcatatttt ggcctatcaa aaacagtggg
                                                                      540
aagtcaaacg taagntgaaa gctattggat ggggaaagaa gactctggac caggtcttag
aggatgtaga ccagtgctgt caagctctct ctcaaagact gggaacacaa ccgtatttct
                                                                      600
                                                                      660
tcaataagca gcctactgaa cttgacgcac tggtatttgg ccatctatac accattctta
ccacacaatt gacaaatgat gaactttctg agaaggtgaa aaactatagc aacctccttg
                                                                      720
                                                                      780
ctttctgtag gagaattgaa cagcactatt ttgaagatcg tggtaaaggc aggctgtcat
                                                                      840
agagitatgi gitagicica ggagicitaa cittigaaat aigittiaci igaatgitac
                                                                      900
attagatatt ggtgtcagaa ttttaaaacc aaattactgc tttttgaaac ctcaaattat
                                                                      960
ataatgtatc ttatgtatgt gctttatatt gttatttgtg tatacattaa aataattctg
                                                                     1020
aattatttaa totgatatgt tgtattotgt atottgaaat tittgtittoo tigaaacatg
                                                                     1073
<210> 128
<211> 300
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (273)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (294)
<223> n equals a,t,g, or c
<400> 128
                                                                       60
caacccctgc ctttttttg ttttccattt gcttggtaga tcttcctcca tccctttatt
                                                                      120
ttgagcctat gtgtgtctct gcccgtgaga tgagtctcct gaatacagca cacttactgg
tottgacfot gtatocaatt tgocagtotg tgtotttoat ttggagoatt tagoccattt
                                                                      240
acatttaagg tkaatattgt tatgtgtgaa tttratcytr tcattatgwt gttagctggt
                                                                      300
tattttgctt gttagttgat gcagtttctt ccnggcatca atggtcttta caanttggca
<210> 129
<211> 1275
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1152)
```

<223> n equals a,t,g, or c <400> 129 ggcagagcct gtccctgctg cccctgcaaa aaaaaccccc tctggtgtga gcaggatggt 60 tggaggttat gtgagctcct tctcctttcc tccagtttcc tcttcccttc tcctccctgc 120 ctcttttgct tttccctttc ttcctggtac cccctgccca ttcctgtatt ttctcccatc 180 gccattctcc cctctcccac tgtccctaac ccgttcaaac tctttcctct taaatggttg 240 agattttctc tcaccaagca caccccagta ttaattaaac tagctgcaaa caggcagcaa 300 gtggtctacc atgacagatg ggttttgtgt gtgtgtgtgt gtgtgtaatt gtaataaaac 360 atattgartc actcaataaa cacagagtgt ctactacatg tatcargcac tatcatagat 420 gctaattaac gaaactgaaa tggccaggcc ctcacagtgg ctcatgccta taatcccagc 480 actttgggag gatgaggcag gaggatcact tgaggccggg agttcaagac cagcctgggc 540 aacatagtaa gactccatct ctacaaaaaa aaaatttttt ttattatact ttaaqttttq 600 ggttacatgt gcagaacgtg tagttttgtt acataggtat atacgtgccc tggtagtttg 660 ctgcacccat caacccatca cctacattag gtatttctcc taatgttacc cctctcctag 720 cccccaccc cgtgacaggc cctggtgtgt gatgttcccc tccctgtgtc catgtgttct 780 cattggtcaa ctctcaccta tggagtgaga acatgtggta tttggttttc tgatcttgtg 840 atagettget gagaatgtkg gtttccaget ttatccaegt eeetgeaaag ggeataaact 900 960 catecetttt tatggetgea tagtgtteea tggtgtatae gtgeeacatt ttettaatet, atcattgatg gacaagtttt gctattgtga atagtgccac aataaacata cgtgtgcgtg 1020 tgtctttata gcagcatgat ttataatcct ttgggtatat acccagtaat gggatcactg 1080 agtcaaatgg tatttctcgt tctagatccg taaggaattg ccacactgtc ttccacaatg 1140 titigaactaa titacactcc caccaacagt gtaaaaagtgt tictattitt ccacaacctc 1200 tocaacatot gttatttoct gactttttaa tgaacgtcat totaactggc gtgagatggt 1260 atctcattgt ggttt 1275 <210> 130 <211> 472 <212> DNA <213> Homo sabiens <220> <221> SITE <222> (2) <223> n equals a,t,g, or c<2.20> <221> SITE <222> (471). <223> n equals a,t,g, or c <220> <221> SITE <222> (472) <223> n equals a,t,g, or c <400> 130 cngaaacccc gtgaaccctc cccgggttaa aaagcccccc ctaaatgggg ggaacgcytc 60 acacgttata aaaaagcact agaatgtttt gaaagcgaga aacaacagct gtgtagggta 120 gctagcagtt agtgttgtac agaagacaga tatttgtgca ttttytgcatt ttctaagttt 180 gctgcaatga gcatgtatta ctttcatagt tataaaacac atgcaaaatg cccttttaaa 240 atgaaaaaa atccatgagt gtaagtgata tatatgcttt ggaaagcctg ggacggtcat 300 tgtttactct caatagtatg tgtttgcctt tgtctttttg agacattttg ttttaatctg 360 ttgatgacaa taacctgttg ataatataac ttgataacaa ataaaatgac ttatgattga 420 awmaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaa nn 472

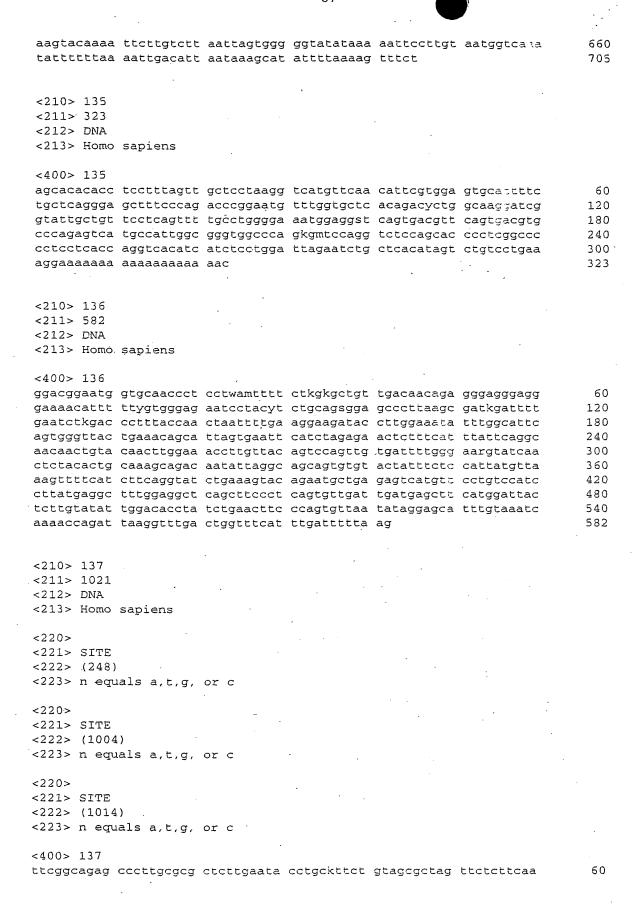
```
<210> 131
 <211> 1950
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (132)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (225)
<223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (249)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (577)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (1933)
 <223> n equals a,t,g, or c
 <400> 131
 accteteaga atettetete ageaacetga gtettegeeg tteeteagag egeeteagtg
                                                                        · 60
                                                                         120
 acacccctgg atocttccag toaccttccc tggaaattot gotgtccage tgctccctgt
                                                                         180
 geogtgeetg thattegetg gtgtatgatg aggaaateat ggetggetgg geacetgatg
                                                                         240
 actictaacct caacacaacc tgccccttct gegeetgeee ettintgeee etgeteagtg
                                                                         300
 tecagacent tgattecegg eccagtgtee ecageeccaa atetgetggt gecagtggea
 gcaaagatgc teetgteect ggtggteetg gecetgtget cagtgaeega agetetgeet
                                                                         360
 tgctctggat gagccccagc tctgcaacgg gcacatgggg ggagcctccc ggcgggttga
                                                                         420
 gagtggggca tgggcatacc tgagccccct ggtgctgcgt aaggagctgg agtcgctggt
                                                                         480
 agagaacgag ggcagtgagg tgctggcgtt gcctgaactg ccctctgccc accccatcat
                                                                         540
                                                                         600
cttctggaac cttttgtggt atttccaacg gctacgnctg cccagtattc taccaggcct
                                                                         660
ggtgctggcc tcctgtgatg ggccttcgma ctcccaggcc ccatctcctt ggctaacccc
                                                                         720
 tgatccagcc tctgttcagg tacggctgct gtgggatgta ctgacccctg accccaatag
ctgcccacct ctctatgtgc tctggagggt ccacagccag atcccccagc gggtggtatg :
                                                                         780
                                                                         840
gccaggccct gtacctgcat cccttagttt ggcactgttg gagtcagtgc tgcgccatgt
tggactcaat gaagtgcaca aggctgtggg gctcctgctg gaaactctag ggcccccacc
                                                                         900
cactggcctg cacctgcaga ggggaatcta ccgtgagata ttattcctga caatggctgc
                                                                         960
tctgggcaag gaccacgtgg acatagtggc cttcgataag aagtacaagt ctgcctttaa
                                                                        1020
                                                                        1080
caagctggcc agcagcatgg gcaaggagga gctgaggcac cggcgggcgc agatgcccac
                                                                        1140
toccaaggoo attgactgoo gaaaatgttt tggagcacct ccagaatgot agagacctta
agetteecte tecageetag ggtggggaag tgaggaagaa gggattetag agttaaactg
                                                                        1200
                                                                        1260
cttccctgtt gccttcatgg agttgggaac aggctgggaa ggatgcccag tcaaaggctc
caagcgagga caacaggaag agggatccac tgttaccaaa agtcctgatt cccccatcac
                                                                        1320
                                                                        1380
caacctaccc agtitigating tycigatint gggggagatic tiggggggagt tiggtacagct
                                                                        1440
ctgttcttcc cttgtcctat accgggaact cccctccagg gtacccacag atctgcattg
ccctggtcat tttagaagtt tttgttttaa aaaacaactg gaaagatgca gagctactga
                                                                        1500
gcctttgccc tgaatgggag gtagggatgt cattctccac caataatggt ccctcttccc
                                                                        1560.
tgacgttgct gaaggagccc aaggetetee atgeetttet acctaagtgt tigtattita
```

<213> Homo sapiens

```
ttttaaatta tttattetgg agecacagee eeettgetta tgaggttett atggagagtg
                                                                        1680
agaaagggaa gggaaatagg gcaccatggt ccggtggttt gtagttcctt caaagtcag;
cactgggage tagaggagte teaageteee ettaggaaga aetggtgeee eeteeagtee
 taatttttct tgcctgcccc gccttgggga atgcctcacc cacccaggtc ctgacctgig
                                                                        1860
caataaggat tgttccctgc gaagttttgt tggatgtaaa tatagtaaaa gctgcttctg
                                                                        1920
                                                                        1950
 tctttttcaa aanaaaaaaa aaaaaaaact
<210> 132
<211> 990
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (657)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (852)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (859)
<223> n equals a,t,g, or c
<220>
 <221> SITE
 <222> (962)
 <223> n equals a,t,g, or c
 <400> 132
                                                                          60
 tggaagattt aaaataggtt tcatatttct cttgaatatg aatatataag cttgaataag
 cttgagtcct tattattatg aaattttcct tattatttct accaatgctt cttatattaa
                                                                         120
 agootgatot tittoatati agtatatgta cattagotgo otgiggatia acatticoat
                                                                         180
 gaaatgtatt tttgcattgt ttgatcttaa actttttgtg tctttatata aggtatgcty
                                                                         240
                                                                         300
 cttttaagca tgatattttt aaccacaata gttgaaagac aatctycacc ttttacttgt
 atatttacat gtaatgtaat ttttgatgca tattacgtct tattatttaa ccaacctatt
                                                                         360
 ttattttatc tagggcattt ttcagaaagc cttattttct tgtattaatc aaatattttt
                                                                         420
                                                                         480
 aycattgtat tttccyctat tagttagkaa tacgktacyc yaaatatata ttgtggstat
                                                                         540
 titicagaatt gcaatatgcc tccttaattt attagaggct aacctaaatt attacttita
                                                                         600
ccacttactt gaaaattctg gaactttaga acatttattg ttttatgcat tttaattcta
                                                                         660
cttgtatttt tactactcct aaacattatt attgttttag acaagccaaa atatatnttg
 ttattatctt atyctccatt tctttctgta tttttatgcc actatgtatg ctcaatttcc
                                                                         720
 ttctatgtga tgaacctaat tcagtacttt tgttttttaa tctgtgcagg tagcctggcc
                                                                         780
                                                                         840
 attaaatttt tatttttggt ttgctgaaaa aattgtgttt atttctatat gcatacttat
 gcatatagaa tnctaggtng acatattttt agtatttata aatgtaaagt cattwattkg
                                                                         900
                                                                         960
 gcttctatca tttckgtkga gaaatcaatt gtcagcccaa tagtttttca ttttaaatta
                                                                         990
 cngaattttt tcatgtctct ggttttagga
 <210> 133
 <211> 1720
 <212> DNA
```

```
<400> 133
                                                                        60
qtctgataag cgactgtggt tattccccta aagtttactt cagcactaac actagtgct.
cogotggagt ttgcagtttt coagotttat acaggatttt cotttgactg gaagagtoma
                                                                       120
ggatatagag actcaacagt gacatttatt gtacaacatc aaggggaata ggatactcat
                                                                       180
                                                                       240
caaactggga ttattcttat caaaacatgg tcttctttga ataagaaaaa tacatagttg
                                                                       300
gttattatgg acttaaaact gtgttaaatg gatattctga taaaatattt gctgctc.gt
agagtgtgga aaatetgaga atattagett taeteatett gagetttgag gatgttetet
                                                                       360
                                                                       420
gtacgccgat ggtttcatat taactaaaaa agctgggtat tgtaaaaatct cattta:aaa
                                                                       480
aactcagatg agaagaaaat tttctttgat ggtgagactg ttgtcttagt tcaggaaatt
                                                                       540
atttaataat cotttgttac ctgtgaatga aggaactttg taattctgat ttatc taaa
                                                                       600
acatgageet ttecagagte agettagaea etgttgtege aaatageeat gettt sett
                                                                       660
atgccaagga ggcccagagg gagggcctag tetteetetg ttgctgtaca tatattgaaa
                                                                       720
tgcttttttt ttttattttg catttgttat ctataatgag ctttctgagc cctgatatta
tgtgagacaa acaggagtta ttgatgttat acactccctt ccattcagga ttttctgctt
                                                                       780
ggagggaaat atgttgacct tagagaattg tgaatattgt tgcaattctt gaatatatta
                                                                       840
                                                                       900
ccatgtgaat aatagagact gtgttgctct ctagtataag ctatatttat ttttgattca
                                                                       960
tttgaattac tagttataac tggagaaatt ttgttacctc tatcctggct tgcctgactg
gctgtataat agcagcagcc tcttttagag catcttaatg aaaacatgga tgaaaggaat
                                                                      1020
taatgatgat atctgcagac tgcgtagaaa atggcttttg ttcccagcgt taacattttc
                                                                      1080
                                                                      1140
ttctcaatca catttcaatg tttgtggaga gtggcagatt cacaccagaa acactaggtg
                                                                      1200
ttcatatcca tagcatggat gcagaataag cagttgggag agaagcttct tcctacctgg
tactcctccc attcacctca gcccagcccc agacaggcgt tagcattcag tgtgggccct
                                                                      1260
caggcagece tgaageetgg etgggteate agatggggge ageetgtgae gggeaeeage
                                                                      1320
ggcctgattc cagggaagag ttcctggagg gtgttggctg tttttgttag ctcagttttt
                                                                      1380
                                                                      1440
ttctgggctc caccattcct aactccaggt agacaagata gatgtcacac acaacaattt
                                                                      1500
taaagtattt tgcttagtgc attttgttta tgattgcagt gtttgtttct tatttaatag
gctttttact tcattctatt aaaítttagt gtttagaaga ggcgggtact gtcactgtgt
                                                                      1560
aaaatatgta atattttata tgttatacca tgtcatatat acttgcaata tcagaccttg
                                                                      1620
cattcaatat acaatgcaat tgactctttg cagacctgca tttttcagtg aacaataaaa
                                                                      1680
                                                                      1720
<210> 134
<211> 705
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (349)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (409)
<223> n equals a,t,g, or c
<400> 134
                                                                        60
ggcacgaggc catctgggct cattcagcag gaaataatgg aaaaagctgc aatatccagg
tgtttactac aatctggagg caagatcttt cctcagtatg tgctgatgtt tgggttgctt
                                                                       120
                                                                       180
gtggaatcac agacactcct agaggagaat gctgttcaag gaacagaacg tactcttgga
ttaaatatag caccttttat taaccagttt caggtaccta tacgtgtatt tttggaccta
                                                                       240
                                                                       300
tecteatige cetgtatace titaageaag ceagtggaae tettaagaet agatttaatg
                                                                       360.
actccgtatt tgaacacctc taacagagaa gtaaaggtat acgtttgtna aatctgggaa
gacttgactg ctattccatt ttgggtatca tatgtacctt gatgaagang attaggttgg.
                                                                       420
gatacttcaa gtgaagcctc ccactggaaa caagctgcag ttgttttaga taatcccatc
                                                                       480
                                                                       540 -
caggttgaaa tgggagagga acttgtactc agcattcagc atcacaaaag caatgtcagc
                                                                       600
```

atcacagtaa agcaatgaag agcagttttc caatgaaaac tgtgtaaata gagcatcaac





```
gatttgctta gtgtcatttc atttcggttt cttttctcgc catgtttttc tgtcggaatt
                                                                        120
acggttcgtt ttggttctat gtactctcta aaatgttatc gtttttcatt tgtctactaa
                                                                        180
tittegigea titgitacta eigagittet taatateiga eiggeeteeg eecaeggget
                                                                        240
ctgcaganca taaaatactc aggctgatgg tagtgcagag actctccctc cttgatcagc
                                                                        300
gcaaacgttg gtctgaggct tgagggatgg agcaacattt tcttggctgt gtgaagcggg
                                                                        360
                                                                        420
cttgggattc cgcagaggtg gcgccagagc cccagcctcc acctattgtg agttcagaag
atogtgggcc gtggcctctt cctttgtatc cagtactagg agagtactca ctggacagct
                                                                        480
gtgatttggg actgctttcc agcccttgct ggcggctgcc cggagtctac tggcaaaacg
                                                                        540
gactetetee tggagtecag ageacettgg aaccaagtae agegaageee aetgagttea
                                                                        600
gttggccggg gacacagaag cagcaagarg cacccgtaga akargtgggg caggcagarg
                                                                        660
aacccgacag actcaggctc crgcagcttc cctggagcag tcctctccat ccytgggaca
                                                                        720
gacagcagga caccgaggtc tgtgacagcg ggtgcctttt ggaacgccgc catcctcctg
                                                                        780
                                                                        840
contecaged giggegeeac elecegggit teleagactg celggagigg attetiogeg
                                                                        900
ttggttttgc cgcgttctct gtactctggg cgtgctgttc acggatctgt ggagctaagc
                                                                        960
agccttagat agcagcagaa ggctttttgg attctcctcc ttgaaaagat tctcagttac
                                                                       1020
caaacgtctc cacctagaaa ataaaaatac attaagatgt tganaaaaaa aaanaaaaaa
                                                                       1021
<210> 138
<211> 1777
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (58)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (118)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (237)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (661)
<223> n equals a,t,g, or c
<400> 138
gattgtttac gatcatatcc ggcgatttgg gtaccgggcc cccccccgac tttttaantt
                                                                         60
ttttttttgc gagacagggt ctcactttgt ggctcaggct ggagtgtact ggcacgtnct
                                                                        120
tageteactg cageettgaa eteetggget caggeaatee teetacetta geeteetgag
                                                                        180
tagctaggac tacaggaatg tgccatcatg cctggctaat ttttaagttt tttgtanaga
                                                                        240
                                                                        300
tgggatctca ctatgttgcc caagctggtt tcagattcct gtgctcaagg gattctgcta
acttggctcc ccaaagtgct gggattacaa atgtgagcca ctgtatctgg cccatattct
                                                                        360
                                                                        420
tttttaagaa aaagatgcag aggtgttaaa tattaatatc aaattgtcca ggcatggtgt
                                                                        480
ttatgaaatt gtgtgccctc tgacaggcaa ccaaacacac acgacttcat ttctttatta
                                                                        540
attectgeet cateatett teteattgat geteettaat gteaaaggaa tetetetete
                                                                        600
tcacacacac ataagaccaa aacaaatatc ttgaacatgc aaaaaaatag tctacgcttt
tgaatagtgt gcactgttga atagtgtgca ctgttggata gtgtgcactg ttgaagtgtg
                                                                        660
natytyccta agycaacagy atcttygyaa agctctagat ttttggcytc gaaataaaac
                                                                        720
                                                                        780
tgcatgttga atagcaggtt tttacattta ttattgttgt gtatttcctc ccctttttgc
```

```
aatactatct acgctgagtt atctattgcc aactagcacc aattctccaa atcaaagtgt
                                                                       840
gtgaggaaaa cacactcgtg caatcctctt taacagaaga tacaccaagt aacctgtctg
                                                                       900
                                                                       960
tctacttctg ttacccagaa ataaaagaac ttgaagggct gcttggctgg aggggtccgg
gtgggagage atcetgeect cagteggaat ceatggtgaa cagetggatg teetgtggat
                                                                      1020
tccagtacag gccgactgct gagttgtaga caagagacca gacatagggg ataaaaaact
                                                                      1080
cctcgggctg ctcctcttcc acatatttga atttcaattc tggaaatttc ttcagtctgt
                                                                      1140
ctttgggcag cgcaacgacg ccttgcttaa tgatttccag gacccgttcc actgacagct
                                                                      1200
cagctcccag cttgcagcaa ccttgagcta aagaaggaga tcaccagatc aatattttgc
                                                                      1260
                                                                      1320
attatateet gaaatgaagg atgagttega aattgtteaa agagategeg itttgtaaage
                                                                      1380
agggcgtata ccaagtttgg gttgtggtga agggaatttg tcaggcagga gttgatgatc
                                                                      1440
tctaacatca ttcgaatcac ttcttcaatg acatttaggt cttgtgcata atctggtaga
                                                                      1500
ggaacatcat tagaactcag cgaacctctc aaggactgtg tggcttgttc cagaactttg
ttgtgttttt tagacagcaa agaaaataaa ctgatgatcc tctgggcagc atactgatgg
                                                                      1560
                                                                      1620
agagaacgaa actgtgccga catatttgct aaagctgcca aacaatttgt gtgaaggtac
                                                                      1680
ttgtctcgtg tcctagtcat gttgtattga atggttctta ttaccaccag gatcaggaga
                                                                      1740
ctccccaagg agatttcagt taaaactcgt tctgaatacc aagtaatatt ttttagtatc
                                                                      1777
acttcatgaa tggatctgtt gaagccatca tcttccg
<210> 139
<211> 643
<212> DNA
<213> Homo sapiens
<400> 139
60
                                                                       120
ttcattgtgg ggagcgggcc gatgtccagc ctcagaactt ctggaactgc ttcttggtgc
                                                                       180
eggeageett ggtgaeettg ageaegttga agegeaetgt ettgeteaga ggeeggeaet
cgcccactgt gacgatgtca ccgatctgga cgtccctgaa gcagggggac aggtgtacag
                                                                       240
                                                                       300
acatgttctt gtggcgcttc tcgaagcggt tgtacttgcg gatgtagtgc agatagtctc
ggcggatgac aatggtcctc tgcatcttca tcttgggtca ccacgccaga gaggatccgc
                                                                       360
                                                                       420
cctcgaatgg acacattacc agtgaagggg catttcttgt caatgtaggt gcccctcaat
agcctccttg gggtgtcttt gaagcccaga ccgatgttct tgttagtaac ccgcgggagc
                                                                       480
tteteettge cagtttetee eageaggace etettettgt tttgaaagat ggteggetge
                                                                      540
ttttggtagg cacgeteagt etgaatgtee gecatettet egtgeegmay teetgeagee
                                                                       600
cgggggatcc actagttcta gagcggccgc accgcggtgg agc
                                                                       643
<210> 140
<211> 1220
<212> DŃA
<213> Homo sapiens
<220>
<221> SITE
<222> (404)
<223> n equals a,t,g, or c
<400> 140
                                                                       60
ttttttttt ttgagatgga atcttgctct tgttgtccag gctggagtgc aatggcacga ,
                                                                      120
tcctggctca ctgcaacctc tgcctcctag cttcaaggga ttctcctgcc tcagcctccc
gagtagetgg gattacaegt geceaecaec aegeeegaet aatattkgta tttttagtag
                                                                      180
agacggggct tcaccaggtt ggccaggcta gtcttggaac tcctgacytc gtgatccacc
                                                                      240
                                                                      300
tgcytcggcy tcccaaagtg ctgggattac aggtgtgagc cgtcttgtgt tttttgtttt
                                                                      360
tgtttgtttt taaaagatgg artttcactc ttattgcccs ggctggaktg caatggcacr
                                                                      420
atotoggoto acogoaatot coacotootg ggotoaagoa attnttotgo cocagootoo
                                                                      480
caaagtgctg gaattacagg tgcccgccac catgcccaac caattttcsg taytcytagt
                                                                      540
agaggtgggg tttcacaacg tkggccaggc tggtytcaaa ctcaaaytcc tgacytcagg
```

```
600
 tgatctgccc actttggcyt cccgaaatgc tgagactaga ggcgcgagcc accacgcctg
 gcctacaaac acattcttgt ttgggttttt atataaaata tgagcacaaa aatactttcc
                                                                          660
 ctaaatacag cctctggctt tgcctaaccc ttggcacaca sccaagtacc tcttccattc
                                                                          720
 tcagatacgt gaggggagtg tatagaggtt tagagtacat acgtttcttc tccaactctt
                                                                          780
 cgtcgtctag aagaagacta accacctctt tgggtttcaa ggtatctggt ttgaagttcc
                                                                          840
 cacctgaaat caccateege tgaateteae tetteteett ggetettige agaatgegtt
                                                                          900
 cttcaatggt gcctttacag atgagccggt acacagtaac ctgctttgtc tgccctaagc
                                                                          960
 ggtgggccct gtccatggcc tgctggtcca cagtggggtt ccagtcgcta tcatagaaaa
                                                                         1020
                                                                         1080
 tgcactgtgt ctkcagcagt gagattgata cccagtcctc cagctcgtgt gcttaacagg
 aacacaaaga tgtcattcct gttctgaaaa tcagcaacca tgtctcgcct ctccgagatc
                                                                         1140
 ttggatgagc catcaagcct yatgtaggta tgcttcctgt aaaccatgta ttcctccagt
                                                                        1200
                                                                         1220
 aggtctatca tcctcgtgcc
 <210> 141
 <211> 721
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (623)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (626)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (638) .
 <223> n equals a,t,g, or c
 <400> 141
 aatteggeae gageeaggtt ageeggaagg geagetetee aggeeetgee caccecacag
                                                                          60
 ggggctcctt atgcacagcg gggcgtctcc ttgtggccat agaaacggaa ctggctcttt
                                                                         120
 tcaacagtgc tgcaagagga tggttattta acgctggccc ccaaggagga aaggcacaga
                                                                         180
                                                                         240
 cyttcctccc tcctggaaca tccaagggca ctggatcctc tgtgtccctc tgagatgggg
 tgccactcca gcaagagcac cacggtggca gctgagtccc agaagcttga agaagagygc
                                                                         3.00
                                                                         360
 gagggaagag agccaggtct ggagaccggc acccaggcag cagactgcaa ggatgccccg
                                                                         420
 ctgaaggatg gaacccctga gccaaagagc tgaaatgcct ctctccagag tcggaccctc
                                                                         480
 acctcyttcc tggaactgcc tttggcccca gaaccatgag acaatcccca ccctgagaag
                                                                         540
 ctccgatcac tgggaggaga gagaaagcct ccagctttgg gattcaggct tcagaagttt
                                                                         600
 ttagcagcct ttgctcattg gagaggtggg gaaaggataa agttcttata aggaaatccc
                                                                         660
 taatttcccc cagctcctcc ccnccngaag aaggaacnaa agaaagttcc ttccacacgt
                                                                         720
 tttgttggaa actittccct tgccaacttt ccttggattg ccagaacaaa gccctccaga
                                                                         721
 а
 <210> 142
. <211> 1468
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (901)
```

<213> Homo sapiens

```
<223> n equals a,t,g, or c
<400> 142
atgaattaat gtttataaat gactgtactg aatttaaaac cgtacagttt catttgcatt.
                                                                         60
tigacattac titattatac attitgcatt taaaaggcig caccagtigg citticitct
                                                                        120
gttttattct caaaatatag agattctgtg atttatttgc cctgtttatg gattaaaaag
                                                                        180
aaaattotaa tataaagcat ttoaatagga tgoataggta tattaogtti titaaatgot
                                                                        240
                                                                        300
ttagatctgt gattcttgac ttactattta ttttatcccc tttaagtcag ggatgcttta
                                                                        360
ttctatttta aagcacttat gagttacatg ttgtaatcaa gtttgcacaa tatatttatc
tatatgagga acccataaat gaatagctaa tttttaaaat gccattaaaa tgcatgaaat
                                                                        420
                                                                        480
kcttattaaa accttactat actatttctt caaggcaagt aaattgacca tgrgraaagr
acacagttat taaacactgt tgacaggaaa attctccttg ataacatagg acaattaatg
                                                                        540
gaaaaaaaaa ttctcattat ttgcaaagaa tgaacaagtt aatgaacaaa caaactagat
                                                                        600
ttggtatgtt ttcagctttt gtatcatgtt taattgttta atttggttga aaaactgcag
                                                                        660
ttgagaaatc agatagcaat atagacattc acagcagctc tgtggatacc atgtaattgt
                                                                        720
                                                                        780
caggiaattit cagaatgiig aaaattatic agigcagccc tcatagiatc atactigaag
aaattgatta cagttccact aaattgttga agataaatta tttttaaagg ttatgaaaac
                                                                        840
taagttatat taattcatat gtttgatttt taaatcccac ctcctcaagc tatccaattt
                                                                        900
                                                                        960
nctgactttg aaaataacca tgagagatgc cacatttctc tctgggaaac taccactcaa
                                                                       1020
agaataattg ttaaaaatta agcttttagg tattagaagc tgttataaag tataaaatta
agatataagc agatcacatg taaatcattc ctaaagcaca agaaaagaat gtgccttgat
                                                                       1080
                                                                       1140
gtacatatat tactaagttg cctctcccag tttactttaa aaatggcttt aaggataaag
aataaatgtg atagctgtgc atgcattata tatttgcatt tgcaaatttc ccattgtttt
                                                                       1200
aacagctgtg tggctgactt tcaattttaa gacgtgaatt gacatacagc ccataacttt
                                                                       1260
ataatggctg ctcatttatc ttatctttca gttagtggaa aaacatttca acctgactaa
                                                                       1320
aatttggaat tgtgtctttt atgttccatc ctctgttgtt actagattta gtttaaaaat
                                                                       1380
tgtgtatgac cattaatgta tgtcataaac atgtaaataa aagatgttga atcttgttga
                                                                       1440
aaagcawraa aaaaaaaaaa aaactcga
                                                                       1468
<210> 143
<211> 300
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2,68)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (284)
<223> n equals a,t,g, or c
<400> 143
                                                                         60
tgaatttttt gccaaactta gtaactctgt taaatatttg gaggatttaa agaacatccc -
agtttgaatt catttcaaac tttttaaatt tttttgtact atgtttggtt ttattttcct
                                                                        120
totgttaatc ttttgtattc rottatgctc togtacattg agtactttta ttccaaaact
                                                                        180
agtgggtttt ctctactgga aattttcaat aaacctgtca ttattgctta ctttgattaa,
                                                                        240
aaaaaaaaa aaaaaaaaa aaaccccnag gggggggccg ggtncccaat cccccccaaa
                                                                        300
<210> 144
<211> 2243
<212> DNA
```

<221> SITE

```
<220>
<221> SITE
<222> (929)
<223> n equals a,t,g, or c
<400> 144
tgcctccctt cctgcagatt gtggacagta gttcctcagc ctgcaccctg gattccttct
                                                                         60
toccottoct agotocatgg gactogcocc aagactgtgg ottoaaggac caccagcocc
                                                                        120
ttactcttca agccctgact gtggagttgg tagatgcctc tgatcctcag tattctctct
ggcaatgttc cacggcttct ccttcctggg agctggctcc ataacttgat tttccccaaa
                                                                        300
cgtgttgcaa tccctgctgc cccttagcca cccagggtct tgtgtgggta tgagtgtaga
                                                                        360
ggatgggggt atgccaggcc tgggccgtcc caggcaggcc cgctggaccc tgatgctact
cctatccact gccatgtacg gtgcccatgc cccattgctg gcactgtgcc atgtggacgg
                                                                        420
ccgagtgccc ttycggccct cctcagccgt gctgctgact gagctgacca agctactgtt
                                                                        480
atgogeette teeettetgg taggetggea ageatggeee caggggeece caccetggeg
                                                                        540
ccaggctgct cccttcgcac tatcagccct gctctatggc gctaacaaca acctggtgat
                                                                        600
ctatcttcag cgttacatgg accccagcac ctaccaggtg ctgagtaatc tcaagattgg
                                                                        660
                                                                        720
aagcacaget gtgetetaet geetetgeet eeggeaeege etetetgtge gteaggggtt
agegetgetg etgetgatgg etgegggage etgetatgea geagggggee tteaagttee
                                                                        780
                                                                        840
egggaacace etteccagte eccetecage agetgetgee ageceeatge ecctgeatat
cacteegeta ggeetgetge teeteattet gtactgeete ateteagget tgtegteagt .
                                                                        900
gtacacagag ctgctcatga agcgacagng gctgcccctg gcacttcaga acctcttcct
                                                                        960
ctacactttt ggtgtgcttc tgaatctagg tctgcatgct ggcggcggct ctggcccagg
sctcctggaa ggtttctcag gatgggcagc actcgtggtg ctgagccagg cactaaatgg
                                                                       1080
                                                                       1140
actgeteatg tetgetgtea tgaageatgg cageageate acaegeetet ttgtggtgte
ctgctcgctg gtggtcaacg ccgtgctctc agcagtcctg ctacggctgc agctcacagc
                                                                       1200
egecttette etggecacat tgeteattgg eetggecatg egectgtaet atggeageeg
                                                                       1260
ctagtccctg acaacttcca ccctgattcc ggaccctgta gattgggcgc caccaccaga
                                                                       1320
tececetece aggeetteet eceteteeca teageageee tgtaacaagt geettgtgag
                                                                       1380
aaaagctgga gaagtgaggg cagccaggtt attctctgga ggttggtgga tgaaggggta
                                                                       1440
cccctaggag atgtgaagtg tgggtttggt taaggaaatg cttaccatcc cccacccca
                                                                       1500
                                                                       1560
accaagttct tccagactaa agaattaagg taacatcaat acctaggcct gagaaataac
cccatccttg ttgggcagct ccctgctttg tcctgcatga acagagttga tgaaagtggg
                                                                       1620
gtgtgggcaa caagtggctt teettgeeta etttagteae ceageagage caetggaget
                                                                       1680
ggctagtcca gcccagccat ggtgcatgac tcttccataa gggatcctca cccttccact
                                                                       1740
ttcatgcaag aaggcccagt tgccacagat tatacaacca ttacccaaac cactctgaca
                                                                       1800
gtctcctcca gttccagcaa tgcctagaga catgctccct gccctctcca cagtgctgct
                                                                       1860
ccccacacct agcctttgtt ctggaaaccc cagagagggc tgggcttgac tcatctcagg
                                                                       1920
gaatgtagce cetgggeeet ggettaagee gacacteetg acetetetgt teaccetgag
                                                                       1980
ggctgtcttg aagcccgcta cccactctga ggctcctagg aggtaccatg cttcccactc
                                                                       2040
                                                                       2100
tggggcctgc ccctgcctag cagtctccca gctcccaaca gcctggggaa gctctgcaca
                                                                       2160
gagtgacctg agaccaggta caggaaacct gtagctcaat cagtgtctct wtaactgcat
aagcaataag atcttaataa agtcttctag gctgtagggt ggttcctaca accacagcca
                                                                       2220
                                                                       2243
aaaaaaaaa aaaaaaactc gag
<210> 145
<211> 1082
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (265)
<223> n equals a,t,q, or c
<220>
```

```
<222> (354)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1064)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1081)
<223> n equals a,t,g, or c
<400> 145
gccaagctct aatacgactc actataggga aagctggtac gcctgcagkt accggttccg
ggaatteeeg ggtegaeeea egegteeget teegtgtgte aaaateetea eeteetteat
                                                                         120
aaccatctcc cacaattaat tettgactat ataaatttat ggtttgataa tattateaat
                                                                         180
ttgtaatcaa ttgagatttc tttagtgctt gcttttctgt gactcaactg cccagacacc
                                                                         240
tcattgtact tgaaaactgg aacancttgg gaatgccatg gggtttgata atctgccagg
                                                                         300
gacatgaaga ggctcagctt cctgggacca tgactttggc tcagctgatc ctgnacatgg
                                                                         360
gagaacaacc acatttttct ttgtgtgtgc ttctagcagc tgttcgggag gaccktgacc
                                                                         420
caayagtgtt cccatgctgt ttcttgtgaa atgctctcgg ctatgtagca gcttttgatt
                                                                         480
ccctgcatac cctaggctgc tgcccctatc ctgtcccttg tttataacat tgagaggttt
                                                                         540
                                                                         600
tctagggcac atactgagtg agagcagtgt tgagaagtcg gggaaaatgg tgactacttt
tagagcaagg ctgggcatca gcacctgtcc agctctactt gtgtgatgtt tcaggaactc
                                                                         660
agcccctttt tctgcctagg ataaggagct gaaagattaa cttggatcty ctaatggtcc
                                                                         720
adatettttg gteacaataa agagteteea aattagagae tgeatgttag ttetggatgg
                                                                         780
                                                                         840
atttggtggc ctgacatgat accetgecag ctgtgagggg accecgtttt taagatgcat
                                                                        900
ggccaagctc tctgcaaatg gaaatgctta cactgggtgt tggggatgtt tgctacctcc
tgctattttt gtggttttgg ttctcccact atggtaggac ccctggccag cattgtggct
                                                                        960
tgtcatgtca gccccattga ctaccttctc atgctctgag gtactactgc ctctgcagca
                                                                        1020
caaatttcta tttctgtcaa taaaaggaga tgaaaataaa aaanaaaaaa aaaaactcg
                                                                       1080
                                                                       1082
<210> 146
<211> 4313
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1126)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (4015)
<223> n equals a,t,g, or c
<400> 146
caagetggtt tgaaactagg ggtegggete ggeegtegte gttgtttgte geegeatece
egetteeggg ttaggeegtt cetgeeegee ceetcetete etceettegg acceatagat
                                                                        120
ctcaggctcg gctccccgcc cgccgcagcc cactgttgac ccggcccgta ctgcggcccc
                                                                        180
gtggccacca tgtccctgca cggcaaacgg aaggagatct acaagtatga agcgccctgg
                                                                        240
                                                                        300
acagtetacg cgatgaactg gagtgtgcgg cccgataagc gctttcgctt ggcgctgggc
agcttcgtgg aggagtacaa caacaaggtt cagcttgttg gtttagatga ggagagttca
                                                                        360
gagtttattt gcagaaacac ctttgaccac ccatacccca ccacaaagct catgtggatc
                                                                        420
```

```
480
cctgacacaa aaggcgtcta tccagaccta ctggcaacaa gcggtgacta tctccgtgtg
                                                                        540
tggagggttg gtgaaacaga gaccaggctg gagtgtttgc taaacaataa taagaactct
                                                                        600
gatttctgtg ctcccctgac ctcctttgac tggaatgagg tggatcctta tcttttaggt
                                                                        660
acctcaagca tigatacgac atgcaccatc tgggggctgg agacagggca ggtgttaggg
cgagtgaatc tcgtgtctgg ccacgtgaag acccagctga tcgcccatga caaagaggtc
                                                                        720
tatgatattg catttagccg ggccgggggt ggcagggaca tgtttgcctc tgtgggtgct
                                                                        780
                                                                        840
gatggctcgg tgcggatgtt tgacctccgc catctagaac acagcaccat catttacgaa
gacccacage atcacccact gettegeete tgetggaaca ageaggaeee taactacetg
                                                                        900
                                                                        960
gccaccatgg ccatggatgg aatggaggtg gtgattctag atgtccgggt tcctgcacac
                                                                       1020
ctgtsgccag gttaaacaac catcgagcat gtgtcaatgg cattgcttgg gccccacatt
                                                                       1080
catcctgcca catctgcact gcagcggatg accaccaggc tctcatctgg gacatccagc
                                                                       1140
aaatgccccg agccattgag gaccctatcc tggcctacac agctgnaagg wgagatcaac
aatgigcagt gggcatcaac tcagcccgaa ytgtcgccat ctgctacaac aactgcctgg
                                                                       1200
                                                                       1260
agatactcag agtgtagtgt tggtggcgct gtgcccacga ggcaggggct tttgtatttc
                                                                       1320
ctgcctctgc cccacccca aagtaagaag aaacatgttt ccagtggcca gtatgtcttt
                                                                       1380
cattgctttg cacccactgt taccagaage tgctctagga gttcctggcc agtcacccca
tegecetetg tggcagaete agtgetgtgt ggcgceteet cageceaggg etgagtttta
                                                                       1440
                                                                       1500
agattttete teettteete tteteetttg gtteeteaat taaaaaatgt gtgtatattt
                                                                       1560
gtttgtcagg cgttgtgttg aggagcagtt cacgcactgg ctgtgtctat tcctctgccc
aggtgtctct gtttgctgcc caakgywkkt tttcatgtct cgtccatgtc catgttcgtg
                                                                       1620
ttagcactwa cgtgggaaca aataccaatt tgtcttttct cctagtatca gtgtgtttaa
                                                                       1680
caaattttaa ctttgtatat ttgttatcta tcaggctaat ttttttatga aaagaatttt
                                                                       1740
                                                                       1800
actetectge tteatttett tgtettatag teeteeetet ttgeacette ttetetteee
teagtgeetg gagetggtae tgggeeetg geeceatgag eagtttgeet tettgagtea
                                                                       1860
                                                                       1920
ctgcctgtgt agtacatacc tgaccgggag tccaaaccac cttggtgctc tgaagtccac
                                                                       1980
tgactcatca cacctttctt agcctggctc ctctcaaggg cattctgggc ttgtaaacag
                                                                       2040
acataggaag cetetgttta eeetgaagea eeaetgteea geeeattggt teeeaetgge
                                                                       2100
agcatggtag agctgagaga aacaggctct cagggtacct gacttgaggg gaatcgtttc
atgaagetga aetteaagea tattteeagt aeattettte agagtetgtt ttteeateea
                                                                       2160
                                                                       2220
aatataagcc ccaggccatt ccacttagtg tcttttcaat gataggcaag aatgatatct
gagttgaact teggtgette tgttgtttga gtttaetgtg cetggtggta tattgggeat
                                                                       2280
totttggatt gagtgttctg aggtgagaga gtottcccga ggcatcctgt ctgtgcttcc
                                                                       2340
aaccetgaac aagacettae atgagagatg gaetgatgga etgeggeaat cetgggetgt
                                                                       2400
caagtggata gatagttaaa aagcattata ctgtgggtaa tgaaaaggga ggaaaaaaaa
                                                                       2460
agaaggaaaa ggaattatag acccccaggg tcagccagtt aagagctcta cccacacctg
                                                                       2520
                                                                       2580
tcaacccctc tctcccccag tttaggttct gagcagtatt.ggacttgtag cctgcagttg
                                                                       2640
tottttgact tgcaggccgc agtgtctttc tgttatgtga atgagttcca tggaggggca
                                                                       2700
tatgtgtgat tccaccgtta gatgagccct tggggcaggc agtttgggat gtgctcttgg
                                                                       2760
gggaaagttg gctgtttcct tgcgctctgc tcctacccga agtttttaag tccctctgaa
ttgctcatct gagattagta gagtagcagg cctgaaggat gatggttttg tcctctttgg
                                                                       2820
                                                                       2880
ttctcacctg cttgagaagt aaaacagtaa ctttgttctt ctgggccctt aagctttttt
                                                                       2940
ggttaagtet teetttteag aagtagatgt cattatatge caaaagteta getetttget
ttaccataca gggacctgtc ccaaagaaaa aggctctttt tttagccagc atatttcccc
                                                                       3000
                                                                       3060
ttctaccctt ttactttgtt gttctgattt taggactctg gctggccatg tgcttgtggt
tgcctctcct gcatttgcca ctggatttgc actgcatcgt ttggagatac aaagcgagca
                                                                       3120
                                                                       3180
gttcttggtc agaacctcc tctgcttttc attgtgtttg ataatggtta ctgggtcctt
                                                                       3240
ctctcaaggg tagcaaggcc aagctgatgg ctgcttgttt aggaggccat cagttccttc
                                                                       3300
ctgtggagaa gggtctgaaa tggaagtcag tggtagaagg ggctggtctg ctgggcaggg
cttacatcca ctgagttcta agattccttt cctgatctgc acctacgcct ggtctgtatg
                                                                       3360
                                                                       3420
gtggaatttg tcagctggaa ctcagaaaca acaacttgaa aaaaaaataa taattagaac
                                                                      3480
atatttgcat aagatagcta tttactctgg aaaccaacaa cttttgagat ttcccttgcc
ctgtggacgc ccagetectg teatecttee ttaggteetg cagtacagte tteecetgaa
                                                                       3540
tgccaccggg gacccagggg gactccaccc ccctaagcaa gcacacacat actcacagtt
                                                                       3600
                                                                       3660
gatgagttgc tggtctttga gtcccagctc tcttaccctc cctttactcc accagcccga
                                                                       3720
cgacccatga ctgaggaggg gatttctaca gtctcaggat ttagaaagtc tgtaagccat
                                                                       3.780
ccatgctcca gaaagcaccg atctgttgta gttgcaaaaa caactctgta atttgttgag
gttctcaaac tgacagccag cgagactggg tgggaggccc tggatctgtt ctccctgact
                                                                       3840
gegggaggag cagecactag gaetttagea ggaageeeae atggaggete egeeaggetg
                                                                       3900
```

```
tggcccagct ggtgatggcc cttttgctcc tggcagcctg aggcacagct gcctgtattg
                                                                     3960
tecteatetg tretgaetga aggatggagg tgetgaataa attaggeete aggentetae
                                                                     4020
caccagagag ctggagaatg ggtccacgtc attcaaggac ctgaattttt tatgctcagg
                                                                     4080
                                                                     4140
agcattggaa teetettett eeagggagga attageetge aaggttagga ettgaagagg
                                                                     4200
gaaggtattt aataactggg cgaggatggg tgtggtggct cacacctgta atcccagcat
                                                                     4260
tttgggaggc tgaggtggcc agatcccaag gtcagaagat cgagaccatc ctggctaaca
                                                                     4313
<210> 147
<211> 1183
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1053)
<223> n equals a,t,g, or c
<400> 147
                                                                       60
ggcagagcct caagctgact tggattatgt ggtccctcaa atctaccgac acatgcagga
                                                                      120
ggagttccgg ggccggttag agaggaccaa atctcagggt cccctgactg tggctgctta
                                                                      180
tcakwygggg agtgtctact cagctgctat ggtcacagcc ctcaccctgt tggccttccc
                                                                      240
acttctgctg ttgcatgcgg agcgcatcag ccttgtgttc ctgcttctgt ttctgcagag
cttccttctc ctacatctgc ttgctgctgg gatacccgtc accacccctg gtccttttac
                                                                      300
tgtgccatgg caggcagtct cggcttgggc cctcatggcc acacagacct tctactccac
                                                                      360
                                                                      420
aggccaccag cctgtctttc cagccatcca ttggcatgca gccttcgtgg gattcccaga
gggtcatggc tcctgtactt ggctgcctgc tttgctagtg ggagccaaca cctttgcctc
                                                                      480
ccacctcctc tttgcagtag gttgcccact gctcctgctc tggcctttcc tgtgtgagag
                                                                      540
                                                                      600
tcaagggctg cggaagagac agcagccccc agggaatgaa gctgatgcca gagtcagacc
                                                                      660
cgaggaggaa gaggagccac tgatggagat gcggctccgg gatgcgcctc agcacttcta
                                                                      720
tgcagcactg ctgcagctgg gcctcaagta cctctttatc cttggtattc agattctggc
                                                                      780
ctgtgccttg gcagcctcca tccttcgcag gcatctcatg gtctggaaag tgtttgcccc
                                                                      840
taagttcata tttgaggctg tgggcttcat tgtgagcagc gtgggacttc tcctgggcat
                                                                      900
agetttggtg atgagagtgg atggtgetgt gageteetgg tteaggeage tatttetgge
ccagcagagg tagcctagtc tgtgattact ggcacttggc tacagagagt gctggagaac
                                                                      960
agtgtagcct ggcctgtaca ggtactggat gatctgcaag acaggctcag ccatactctt
                                                                     1020
actatcatge agecagggge egetgacate tangacttea ttattewatr atteaggace
                                                                     1080.
                                                                     1140
acagtggagt atgateceta acteetgatt tggatgeate tgagggaeaa gggggkeggt
                                                                     1183
stocgaagtg gaataaaata ggcgggcgtg gtgacttgca cct
<210> 148
<211> 734
<212> DNA
<213> Homo sapiens
<400> 148
gaattoggca gagtgaagca ttagaatgat tocaacactg ctottotgca coatgagaco
                                                                       60
aacccaggge aagatcccat cccatcacat cagcctacct ccctcctggc tgctggccak
                                                                      120
                                                                      180
gatgtcgcca gcattacctt ccactgcctt tctccctggg aagcagcaca gctgagactg
ggcaccagge cacctetgtt gggacccaca ggaaagagtg tggcagcaac tgcmtggctg
                                                                      240
acctttctat cttctctagg ctcaggtact gctcctccat gcccatggyt gggccgtggg
                                                                      300
                                                                      360
gagaagaagc totcatacgc ottoccacto cototggttt ataggactto actocctago
                                                                      420
caacaggaga ggaggcctcc tggggtttcc ccrrggcagt aggtcadacg acctcatcac
                                                                      480
agtottoott cotottoaag ogtttoatgt tgaacacago tototoorot coottgtgat
                                                                      540
ttctgagggt caccactgcc arcctcaggc aacatagaga gcctcctgtt ctttctatgc
```

ttggtctgac tgagcctaaa gttgagaaaa tgggtgccaa ggccagtgcc agtgtcttgg

600

```
ggcccctttg gctctccctc actctctgag gctccagctg gtcctgggac atgcagccag
                                                                         660
 gactgtgagt ctgggcasgt ccaaggcctg caccttcaag aagtggaata aatgtggcct
                                                                         720
 ttqcttctat ttaa
                                                                         734
<210> 149
<211> 1405
<212> DNA
 <213> Homo sapiens
<220>
<221> SITE
<222> (604)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (842)
<223> n equals a,t,q, or c
<220>
<221> SITE
<222> (1079)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1334)
<223> n equals a,t,g, or c
<400> 149
ggcacagtgg accccagact ccctctccgc ctttctctgc ctggggagac ccactgtgtg
                                                                         60
catggcatca etgactecca tacetetgge tateaaaggt ttetgecatg gecaceetgg
                                                                        120
aagsaaacca gagggaggta gacagggaga tcaggtccct tctactctgg ttcctgctct
                                                                        180
gtgaaattgt ctcaggctgg ctgtgtccag arggtccctg gttctctcar ggatgccaaa-
                                                                        240
totacaagaa tototootot tocagttoot ataacototo ottoottttg tototttaga
                                                                        300
ccttggagta gtagcagcca ggttctttct atctctgggt tagtgcatta tctctggtgg
                                                                        360
ctcccttacc caggactttg ggaatggtct ttttgtaata cattctcctc aaataattca
                                                                        420
attitigagig tictgtatgt atcctgctgg gaggitgita tatacaaatc actgtgcccg
                                                                        480
tttagcagag aaggagactg aagctcaggg aggttaagtg tctttctcta ggtcgtattg
                                                                        540
tggagaaagt ggctgactgg ggacttgaat gaggtcccta gtttcatgct cggagggcaa
                                                                        600
agangaatgt ccaattggcc tgagataagc ctctggtaaa atgtactgta cataataggt
                                                                        660
aatcaataaa tgttggctga tgacaaacat gttttctttg ttcattagtt atagtgatta
                                                                        720
tgttctaaat aactccmaca aggaartcag cacatttgga atatcawtat ctttccatga
                                                                        780
taatatettt eemyggaaag awaatgatat teemaaetgg gagtgteeew agearatetg
                                                                        840
antetgtgta ttggeeetgg ggtgggeeag cecettagae tetatggtet cattetett
                                                                        900
gittacaaaa tigagataag geettattet etececaeee caeecateea tatigittig
                                                                        960
agaataaaat gagaggatgt gtgtcaaggg tgtattttgg caatagtctc tgagccattt
                                                                       1020
totgagoaco tocatactgt tgacactcaa gtaatattto atcagoatto cattcaggnt.
                                                                       1080
cctcccttaa tgaggtgtgc gatgtacaag agtygtgagg tggcaaagga tgggctcctg
                                                                       1140
aggaaacact taggaaactg ggctttctgc cattaaaaga gacaaacctt tgtggtgacc
                                                                       1200
taattaaagt ttttaaaatt caatttggaa agttagcaag ctagctcctk tccaggwaaa
                                                                       1260
ataaggagte agtgeatgae etaaceggte eegggetget tgecatteea aacaactgea
                                                                       1320
gtaagtttat cacnttettt cagggactga ggtttecagg cacagacttg gataaggaag
                                                                       1380
gatgtcctat ggggtcacat tgatg
                                                                       1405
```

```
<211> 2890
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (45)
<223> n equals a,t,g, or c
<400> 150
ttatatgcta cagctacagt aatttcttct ccaagcacag agganctttc ccaggatcag
                                                                         60
                                                                        120
ggggatcgcg cgtcacttga tgctgctgac agtggtcgtg ggagctggac gtcatgctca
                                                                        180
agtggctccc atgataatat acagacgatc cagcaccaga gaagctggga gactcttcca
                                                                        240
ttcgggcata ctcactttga ttattcaggg gatcctgcag gtttatgggc atcaagcagc
catatggacc aaattatgtt ttctgatcat agcacaaagt ataacaggca aaatcaaagt .
                                                                        300
agagagagcc ttgaacaagc ccagtcccga gcaagctggg cgtcttccac aggttactgg
                                                                        360
                                                                        420
ggagaagact cagaaggtga cacaggcaca ataaagcgga ggggtggaaa ggatgtttcc
                                                                        480
attgaagccg aaagcagtag cctaacgtct gtgactacgg aagaaaccaa gcctgtcccc
atgcctgccc acatagctgt ggcatcaagt actacaaagg ggctcattgc acgaaaggag
                                                                        540
                                                                        600
ggcaggtate gagageeece geceaeceet eceggetaca tiggaatiee cattactgae
                                                                        660
tttccagaag ggcactccca tccagccagg aaaccgccgg actacaacgt ggcccttcag
                                                                        720
agategegga tggtegeacg atecteegae acagetggge etteateegt acageageea
                                                                        780
catgggcatc ccaccagcag caggcctgtg aacaaacctc agtggcataa aycgaacgag
totgaccogo gootogooco ytatoagtoo caagggtttt coacogagga ggatgaagat
                                                                        840
gaacaagttt ctgctgtttg aggcacagac ttttctggaa gcagagcgag ccacctgaaa
                                                                        900
                                                                        960
ggagagcaca agaagacgtc ctgagcattg gagccttgga actcacattc tgaggacggt
                                                                       1020
ggaccagttt gcctccttcc ctgccttaaa agcagcatgg ggsttcttct ccccttcttc
ctttcccctt tgcatgtgaa atactgtgaa gaaattgccc tggcactttt cagactttgt
                                                                       1080
                                                                       1140
tgcttgaaat gcacagtgca gcaatcttcg agctcccact gttgctgcct gccacatcac
acagtateat tecaaattee aagateatea caacaagatg atteactetg getgeaette
                                                                       1200
tcaatgcctg gaaggatttt ttttaatctt ccttttagat ttcaatccag tcctagcact
                                                                       1260
tgatctcatt gggataatga gaaaagctag ccattgaact acttggggcc tttaacccac
                                                                       1320
caaggaagac aaagaaaaac aatgaaatcc tttgagtaca gtgcttgtcc acttgtttac
                                                                       1380
                                                                       1440
aatgtcctcc ttttaaaaaa aaaaaaatga gtttaaagat tttgttcaga gagtaaatat
                                                                       1500
atatccattt aatgattaca gtattatttt aaaccttaag tagggttgcc agcctggttt
                                                                       1560
ctgaaaaacc aaatatgccg gacagggtgt ggccacacca agaagacggg aagacctggc
                                                                       1620
ttgtgaccct ggcttcccat gtccttctgg tctcacccgc gaagtgccct atcctggaag
tatgaaatgt tagccaatta ataccaagac acctcatctg ctccttcccc agtggatggg
                                                                       1680
gttcttctgt aaaactgttt gcacatggcc aggggaggga actaggaccc ttgtgtcctg
                                                                       1740
totgagoctt atggaggcag gacggtgtca ttggcggatg tgtcctgctc cattgagatg
                                                                       1800
gatggcaaac cccattttta agttatattt ctttgatttt tgttaattta gaggtgtagg
                                                                       1860
ttttgttttt tgttttttg tttttttta agagaaacat ttataactgg atagcattgc
                                                                       1920
                                                                       1980
agtgaaagca gcttgggatg ttggagctaa tgccagctgt ttatactgct ctttcaagac
agcctccctt tattgaattg gcattaggga ataaacaagc ctttaaacgt gataaaagat
                                                                       2040
                                                                       2100
caaaaacctg gttagacatg ccagcctttg caaggcaggt tagtcaccaa agactaacct
                                                                       2160
ccaagtggct ttatggacgc tgcatataga gaaggcctaa gtgtagcaac catctgctca
                                                                       2220
cagetgetat taaccetata atgactgaaa tgacceetee actetatttt tgtgttgttt
                                                                       2280
tgcacagact ccggaaaagt gaaggctgcc aatctgagta gtactcaaat. gtgaggaact
                                                                       2340
gctggtcttg gattttttt ccattaaatt cagctgatca tattgatcag tagataaacg
taaatagott caaattttaa aagtggaatt gcagtgtttt ttcactgtat caaacaatgt
                                                                       2400
                                                                       2460
cagtgettta tttaataatt etettetgta teatggeatt tgtetaettg ettattaeat
                                                                       2520
tgtcaattat gcatttgtaa tittacatgt aatatgcatt atttgccagt titattatat
                                                                       2580
aggctatgga cctcatgtgc atatagaaag acagaaatct agctctacca caagttgcac
aaatgttatc taagcattaa gtaattgtag aacataggac tgctaatctc agttcgctct
                                                                       2640
                                                                       2700
gtgatgtcaa gtgcagaatg tacaattaac tggtgatttc ctcatacttt tgatactact
                                                                       2760
tgtacctgta tgtcttttag aaagacattg gtggagtctg tatccctttt gtatttttaa
                                                                       2820
tacaataatt gtacatattg gttatatttt tgttgaagat ggtagaaatg tactatgttt
                                                                       2880
atgettetae atccagtttg tacaagetgg aaaataaata aatataacat aaaaaaaaaa
```

2890

540

aaaaaaaaa

```
<210> 151
<211> 2399
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (73)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (90)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (128)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (219)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (255)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (272)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2354)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2364)
<223> n equals a,t,g, or c
<400> 151
gaacttttcc atctggcaaa ccggaaactc catccccatt aaaccaactc ccccttttgg
                                                                         60
tttcccccc agnggaatag aatttggacn cccatataaa tccaggaaac cacctaaatt
                                                                        120
ctttagtngt ttgtgtttgc aagatctaag gtcatggtaa acattaagtt cttaaaattt
                                                                        180
ttgggaggga ccagtgcacc tctccctctg aattgttcnc caatttaaaa ttggagtaag
                                                                        240
gttttaaaat gtctnattcc attggaaggg tntgttattt cattttgagc ccagagggga
                                                                        300
gaggcacatt ttaaatatca gaattagatt agctttgagt ttgtacaatt gggaacataa
                                                                        360
                                                                        420
tagattttca taaattatgt gtgccttgtt ggaagtgtca actgtcttta tgtctgcttg
taaaagtttc aaaatatgtt ticcctcaaa aaggcaacgt tacttcattt gcttgaatat
                                                                        480 .
```

tatgatagga atgettactg atattacttg atagteatat atageetagg aaatttaaca

```
600
 tatatataac tatagcagta ttaataatga tagttgtact tctttaaaac attaaatttg
                                                                         660
aggaaacttt aatgetgtet egtgtacatt getttactae agtgaggggg aatateettt
                                                                         720
agattgagcc tcaatttact ggttagtagt atgtgaactc tggtataaaa acgtaaacta
                                                                         780
gacagtagag ccgatgaatt aaaattgtaa attgctacat tggcattttc tacctccttt.
                                                                         840
 totgicagag tattactitt tocagoatti attottatti gigagiaaag aggaaatggg
aacctgaggt taaaattgac atttttgttt cattgagaat ttaagcagta ggtacaggag
                                                                         900
aagtgacttg tcacattaat ttggtgccta aatctgtaac tacaagttgt gatcgacatg
                                                                         960
 tacaaaatgt ctaagaaagg tcatatgctg aatattttac ttttcctgta tagtctgcat
                                                                        1020
gatttgtttc ataaacccag cttatttcct ccaaaaagca aaatggtcct gtaattttta .
                                                                        1080
aagtaaaata aacgtgccat tttgtctgca atctataatt tcaggaagtt attgraagtt
                                                                       1140
                                                                       1200
ctgactcagg gctttttaac agttcaagca attgtcagtt atattttgga aactccatct
gtgtaattct ccagtgcctt gaaagaatta ttaacttggc aacactatta aaactttata
                                                                       1260
aaagatggtc tttagtgcac gtgtatcatt atatacacgt tttaaagtca tattgcttag
                                                                        1320
                                                                        1380
cttgttaata atgattctgc atgtgtgctg ggtttgggta attctttaaa ggaagttttc
                                                                       1440
 tagatttgca cttgatgttt gttttttaaa aactgattat ttatggccgt gacactgtta
ccagaaaagt aattctaatt aagttattat gcaaagtcat ctataagtag catctgggaa
                                                                       1500
gaggagatsg aggccacagt ttgctatttt agtatgaaag gaggatctgt ttgggaaaca
                                                                       1560
                                                                       1620
 tagattgtct tcccctcaaa tgaggggaaa aaaaaagacc ctttgttcaa atggattctg
 ttgtaaaaaa ttattttaa aggaaatcac aaattgtatg tcattcttaa tgctagtctt
                                                                       1680
                                                                       1740
atagaataaa tocataaaat tgtttttatg ttcagtatgt ttatgtcatt ctaaatgcag
                                                                       1800
caaattcaat gatagcagtt caattgactc atagcagtgt ttttgtatttt ttctaattct
                                                                       1860
 ttagetttea atattggatt aaagtettgt ttgtgaatat agtiteegta tggcaaaiga
 tttcttgctt attagctttt gttaaagaat gcttagtaag agctaagctt ttaaaagtaa
                                                                       1920
tgcaaacatt tatcgttaat aaaacctatg gtgtaatatc atataatgct tttctttgat
                                                                       1980
                                                                       2040
ctttggagaa ttattctttt atagtagtat acatgaattt tgatttttaa agcatttaaa
                                                                       2100
aacaaatctc aatacattaa aaaacctgtt attgttaaaa rggaaattac catgccttta
                                                                       2160
aqaaacaagg atgtacatct tcaattcagc atragtgtcc acatctagaa ggctctcatt
gcagttgttt acagttaagg tacctctatc taaagggcca aagaagcatt tcatayttta
                                                                       2220
                                                                       2280
acacctcaca ttctttcagg attaagacat atgaaaatag tctgaatagg ataaatttgg
                                                                       2340
ataggaagta acttaaccag totgggaaga ttoaggottt ttotatkaaa aagottatto
ctcttcacaa ctcnggtggt aggntttcat ttttcaagag ggtagatatt ttaaagcca
                                                                       2399
```

```
<210> 152
 <211> 802
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (105)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (730)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (755)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (757)
```

<223> n equals a,t,g, or c

```
<220>
<221> SITE
<222> (777)
<223> n equals a,t,g, or c
<400> 152
                                                                         60
cgtgcctgta gtaagctcat ccctgccttt gagatggtga tgcgtgccaa ggacaatgtt
                                                                        120
taccacctgg actgctttgc atgtcagctt tgtaatcaga gattntgtgt tggagacaaa
                                                                        180
tttttcctaa agaataacwt gaycctttgc caracggact acgaggaagg tttaatgaaa
gaaggttatg caccomggt togotgatot atcaacatca coccattaag aatacaaagc
                                                                        240
                                                                        300
actacattct tttatctttt ttgctccaca tgtacataag aattgacaca ggaacctact
gaatagcgta gatataggaa ggcaggatgg ttatatggaa taaaaggcgg actgcatctg
                                                                        360
tatgtagtga aattgcccca gttcagagtt gaatgtttat tattaaagaa aaaagtaatg
                                                                        420
                                                                        480
tacatatggc tggatttttt tgcttgctat tcgtttttgt gtcacttggc atgagatgtt
tattttggac tattgtatat aatgtattgt aatatttgaa gcacaaatgt aatacagttt
                                                                        540
                                                                        600
tattgtgtta ccatttgtgt tccatttgct yctttgtatt gttgcattta gtacaatcag
                                                                        660
tgtttaaact tactgtatat ttatgctttc tgtatttacc agctatttta aatgagctgt
aactttctag taaagaattg aaaagcaaat cctcactaaa ggatacacag gataggataa
                                                                        720
                                                                        780
agccaagten catcaacatt aaaaaatact aaaananaaa acacaaaaaa aaaaaanccc
                                                                        802
gggggggcc cggaacccat tc
<210'> 153
<211> 461
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (77)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (437)
<223> n equals a,t,g, or c
<400> 153
                                                                         60
ctaggagcac cgagcagctt ggctaaaagt aagggtgtcg tgctgatggc cctgtgcgca
                                                                        120
ctgaccegeg ctctgcnctc tctgaacctg gcgcccccga ccgtcgccgc ccctgccccg
                                                                        180
agtictiftice ecgeegeeca gatgatgaae aatggeetee teeaacagee etetgeettg
atgttgctcc cctgccgccc agttcttact tctgtggccc ttaatgccaa ctttgtgtcc
                                                                        240
                                                                        300
tggaagagtc gtaccaagta caccattaca ccagtgaaga tgaggaagtc tgggggccga
gaccacacag gtgggaacaa ggacaggggg atttaagcag tcaaaaggaa aaacatgtta
                                                                        360
agaccctaga cttgtatatt gacacacttg taccttgtaa ggcagaggaa tgtaattaaa
                                                                        420
                                                                        461
aagcacttat ttggcwnaaa aaaaaaaaaa aaaaaaaaa c
<210> 154
<211> 2388
<212> DNA
<213> Homo sapiens
<400> 154
                                                                         60
gcccacgcgt ccgaaagcgg agaacgctgg tgggcctgtt gtggagtacg ctttggactg
agaaqcatcg agqctatagg acgcagctgt tgccatgacg gcccaggggg gctggtggct
                                                                        120
aaccgaggcc ggcgcttcaa gtgggccatt gagctaagcg ggcctggagg aggcagcagg
                                                                        180
ggtcgaagtg accggggcag tggccaggga gactcgctct acccagtcgg ttacttggac
```

```
300
aagcaagtgc ctgataccag cgtgcaagag acagaccgga tcctggtgga gaagcgctgc
                                                                       360
tgggacatcg ccttgggtcc cctcaaacag attcccatga atctcttcat catgtacatg
gcaggcaata ctatctccat cttccctact atgatggtgt gtatgatggc ctggcgaccc
                                                                       420
attcaggcac ttatggccat ttcagccact ttcaagatgt tagaaagttc aagccagaag.
                                                                       480
                                                                       540
tttcttcagg gtttggtcta tctcattggg aacctgatgg gtttggcatt ggctgtttac
aagtgccagt ccatgggact gttacctaca catgcatcgg attggttagc cttcattgag
                                                                       600
cccctgaga gaatggagtt cagtggtgga ggactgcttt tgtgaacatg agaaagcagc
                                                                       660
geotggteec tatgtatttg ggtettattt acateettet ttaageecag tggeteetea
                                                                       720
                                                                       780
gcatactett aaactaatea ettatgttaa aaagaaceaa aagaetettt teteeatggt
                                                                       840
ggggtgacag gtcctagaag gacaatgtgc atattacgac aaacacaaag aaactatacc
                                                                       900
ataacccaag gctgaaaata atgtagaaaa ctttattttt gtttccagta cagagcaaaa
                                                                       960
caacaacaa aaaacataac tatgtaaaca agagaataac tgctgctaaa tcaagaactg
                                                                      1020
ttgcagcatc tcctttcaat aaattaaatg gttgagaaca atgcataaaa aaagttgcac
                                                                       1080
aagttootta ttttoottaa tatttoactt otatttaata caagotggga cataaaaaatt
                                                                       1140
ctgttgggga tacctggggg aagatgtgag aaactaatgc tgaattcagc ttatacatga
                                                                      1200
tgaaaagaaa aaccagacaa aaggagcaca taaatatgca tacagtgtaa ctgttattat
tttaataccc acgataaggg atttttgtta gcatgtttag ggggaacgag gattggtggg
                                                                      1260
atccttgggg ccacaggaat ctgaggcaac ggaagatata tagagtgatc gtccccctgc
                                                                       1320
cgaaggaacc tggcayctgt caagcagatg ctgcagttca aacttcagct tttaagatag
                                                                       1380
atagctattg aaggcagagg gtcagcagga ggatgtgtat ttctaatcta ccctggtaaa
                                                                       1440
                                                                       1500
gtcataggta agactcaaaa gcgggatctt attcaaaagg caggtatttc ctttgttttc
                                                                       1560
tgtcttgaaa tagccccttc ccctaaggtg cattctctca agttttcagt attgctttat
ttgcagtgat taaaagagat gagagacttt ggagacagac aacgtaagca acacatacac
                                                                       1620
acatgaaata ctctagacag agatgaatat aaatctggcc taataaccag ttttccatgt
                                                                       1680
aacagtgatt ttgtgtttcg ggctgaagca gtggttatat taaaagccac taattccctt
                                                                       1740
atccctttaa aagattttta caattctcca accacaaaca gcacttctaa aactaacttt
                                                                       1800
actttctgcc cataatttgt tctacatgga aaaaaaaaat attactttgg ccaggggtgt
                                                                      1860
gtgtaaatgt ggcagaattc ctaggcaggc tgacctttac agtatgggcc tttaagatac
                                                                       1920
tggatcctgg ttgggcaaca agtgtcacgc ctgaagtttc tgaaaacaaa ttagaagact
                                                                       1980
gttggcttgg ctaatctcgt agttcagggc caagtttctg tagtcagaat gaagaataaa
                                                                       2040
attgaaagaa aaagggggaa atgcttatac ttggcattaa gttgaatgcc tcaagtctta
                                                                      2100.
actatggett tgtagatgag gcaaaagatt tettagtggt aaaatttett caacaggtea
                                                                       2160
atgccaatct gtatgccatt ttagtaaagt aggtaaggag agtagccgct cagtaacttt
                                                                       2220
ggcactaaag aaagagtgtg gctctagaac ttccaatccc attgctagat gtgcccttta
                                                                      2280
aaagatggtc cagtgctttc agggaaggat gtttagccag ttttcctagt atttgttcct
                                                                      2340
                                                                       2388
taagattttt tgacctgtgc ttaataagac ggacgcgtgg gtcgaccc
<210> 155
<211> 642
<212> DNA
<213> Homo sapiens
<400> 155
aaaacagacc atttaaaaac tcagacaaga ttatatttaa tatattaatt actaaaaagg
                                                                         60
                                                                        120
cacaagatta cactgaacat attagctact aaaaaggcac tgctaagaca ttcaagcaaa
tagctattac acactactgc agattttaca ggtttctaat tctaacatat gtttgaaaaa
                                                                        180
tccgtgagta ttccaaaata tatttaataa tggaatatct gcattaatat accatccatg
                                                                        240
tgtttttacc atttgcctta atattgaata tactgtttac ctcacactaa aaagaaaacc
                                                                        300
                                                                        360
agaagcctta tttgtgattt tgggagtgga agcttccatt tttgtgtcaa aaatgaatcc
                                                                        420
tgattcttat ggaaatctct gttattaaga tatttcaaga tgagacaaca ctgaagatca
aattgtgttt agtatcacta tettetetee tegtttetet ettacteete ateeteecag
                                                                        480
                                                                        540
aatctaccag tttatggtag aaagatggga accttatttg aatgtgtttt ttttttcca
tgatgtccaa ttttgttgtg ggaaaggatt tggataaaat ttttgtttaa attttggtag
                                                                       600
                                                                        642
atttttatct atacaaattt aaataaaatt atgttttgta ag
```

```
<211> 1251
<212> DNA
<213> Homo sapiens
<400> 156
                                                                         60
gccgctgccc ctccacggag ttgctgatca tctgggctgt gatccacaaa cccggttctt
tgtccctcct aatatcaaac agtggattgc cttgctgcag aggggaaact gcacgtttaa
                                                                        120
                                                                        180
agagaaaata tcacgggccg ctttccacaa tgcagttgct gtagtcatct acaataataa 🗸
atccaaagag gagccagtta ccatgactca tccaggcact gagcatatta ttgctgtcat
                                                                        240
gataacagaa ttgaggggta aggatatttt gagttatctg gagaaaaaaca tctctgtaca
                                                                        300
                                                                        360
aatgacaata gctgttggaa ctcgaatgcc accgaagaac ttcagccgtg gctctctagt
                                                                        420
cttcgtgtca atatccttta ttgttttgat gattatttct tcagcatggc tcatattcta
                                                                        480
cttcattcag aagatcaggt acacaaatgc acgcgacagg aaccagcgtc gtctcggaga
                                                                        540
tgcagccaag aaagccatca gtaaattgac aaccaggaca gtaaagaagg gtgacaagga
                                                                        600
aactgaccca gactttgatc attgtgcagt ctgcatagag agctataagc agaatgatgt
                                                                        660
cgtccgaatt ctcccctgca agcatgtitt ccacaaatcc tgcgtggatc cctggcttag
                                                                        720
tgaacattgt acctgtccta tgtgcaaact taatatattg aaggccctgg gaattgtgcc
                                                                        780
gaatttgcca tgtactgata acgtagcatt cgatatggaa aggctcacca gaacccaagc
tgttaaccga agatcagccc teggegacct egeeggegac aacteeettg geettgagec
                                                                        840
acttcgaact tcggggatct cacctcttcc tcaggatggg gagctcactc cgagaacagg
                                                                        900
                                                                        960
agaaatcaac attgcagtaa caaaagaatg gtttattatt gccagttttg gcctcctcag
                                                                       1020
tgccctcaca ctctgctaca tgatcatcag agccacagct agcttgaatg ctaatgaggt
                                                                       1080
agaatggttt tgaagaagaa aaaacctgct ttctgactga ttttgccttg aaggaaaaaa
                                                                       1140
gaacctattt ttgtgcatca tttaccaatc atgccacaca agcatttatt tttagtacat
tttatttttt cataaaattg ctaatgccaa agctttgtat taaaagaaat aaataataaa
                                                                       1200
ataaaaaaaa aaaaaccccg gggggggccc ggtccccaat tggccctatg g
<210> 157
<211> 2127
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (312)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1212)
<223> n equals a,t,g, or c
<400> 157
                                                                         60
ccggcgggag agggaagctg cagcgagagg cgcggatctc agcgcgggag cagtgcttct
                                                                        120
geggeaggee cetgagggag ggagetgtea geeagggaaa acegagaaca ceateaceat
gacaaccagt caccagecte aggacagata caaagetgte tggettatet tetteatget
                                                                        180
                                                                        240
gggtctggga acgctgctcc cgtggaattt tttcatgacg gccactcagt atttcacaaa
                                                                        300
ccgcctggac atgtcccaga atgtgtcctt ggtcactgct gaactgagca aggacgccca
                                                                        360
ggcgtcagcg cnccctgcag cacccttgcc tgagcggaac tetetcagtg ccatcttcaa
caatgtcatg accetatgtg ccatgetgcc cetgetgtta ttcacctace tcaacteett
                                                                        420
cctgcatcag aggatccccc agtccgtacg gatcctgggc agcctggtgg ccatcctgct
                                                                        480
                                                                        540
ggtgtttctg atcactgcca tcctggtgaa ggtgcagctg gatgctctgc ccttctttgt
                                                                        600
catcaccatg atcaagatcg tgctcattaa ttcatttggt gccatcctgc agggcagcct
                                                                        660
gtttggtctg gctggccttc tgcctgccag ctracacggc ccccatcatg agtggccagg
                                                                        720
gcctagcagg cttctttgcc tccgtggcca tgatctgcgc tattgccagt ggctcggagc
tatcagaaag tgccttcggc tactttatca cagcctgtgc tgtkatcatt ttgaccatca
                                                                        780
                                                                        840
totyttacot gggcotgcco cgcotggaat totacogota ctaccagoag ctcaagottg
```

```
900
aaggacccgg ggagcaggag accaagttgg acctcattag caaaggagag gagccaagag
caggcaaaga ggaatctgga gtttcagtct ccaactctca gcccaccaat gaaagccact
                                                                       960
ctatcaaagc catcctgaaa aatatctcag tcctggcttt ctctgtctgc ttcatcttca
                                                                       1020
                                                                      1080
ctatcaccat tgggatgttt ccagccgtga ctgttgaggt caagtccagc atcgcaggca
                                                                      1140
gcagcacctg ggaacgttac ttcattcctg tgtcctgttt cttgactttc aatatctttg
actggttggg ccggagcctc acagctgtat tcatgtggcc tgggaaggac agccgctggc
                                                                      1200
tgccaagctg gntgctggcc cggctggtgt ttgtgccact gctgctgctg tgcaacatta
                                                                      1260
                                                                      1320
agccccgccg ctacctgact gtggtcttcg agcacgatgc ctggttcatc ttcttcatgg
ctgcctttgc cttctccaac ggctacctcg ccagcctctg catgtgcttc gggcccaaga
                                                                      1380
aagtgaagcc agctgaggca gagaccgcag agccatcatg gccttcttcc tgtgtctggg
                                                                      1440
totggcactg ggggctgttt totcottcot gttccgggca attgtgtgac aaaggatgga
                                                                      1500
                                                                      1560
cagaaggact geetgeetee etecetgtet geeteetgee eetteettet geeaggggtg
                                                                      1620
atcotgagtg gtotggcggt tittictict aactgactic tgctttccac ggcgtgtgct
                                                                      1680
gggcccggat ctccaggccc tggggaggga gcctctggac ggacagtggg gacattgtgg
                                                                      1740
gtttggggct cagagtcgag ggacggggtg tagcctcggc atttgcttga gtttctccac
tettggetet gaetgateee tgettgtgea ggecagtgga ggetettggg ettggagaae
                                                                      1800
acgtgtgtct ctgtgtatgt gtctgtgtgt ctgcgtccgt gtctgtcaga ctgtctgcct
                                                                      1860
gteetggggt ggetaggage tgggtetgae egttgtatgg tttgacetga tatacteeat
                                                                      1920
teteccetge geotectect etgtgttete tecatgtece ecteccaact ecceatgece
                                                                      1980
                                                                       2040
agttettace cateatgeae ectgtacagt tgecaegtta etgeettitt taaaaatata
tttgacagaa accaggtgcc ttcagaggct ctctgattta aataaacctt tcttgttttt
                                                                       2100
                                                                       2127
ttctccatgg aaaaaaaaa aaaaaaa
<210> 158
<211> 1625
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (44)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1066)
<223> n equals a,t,g, or c
<400> 158
                                                                        60
caaaagatct ataatcagga cattgtttat gtaagttgga caanaaaaat tetteecett
                                                                       120
tatqtccacc cttcctatga ttgcaagaca aaatttccct cctttacctc atccctataa
                                                                       1.80
catgggaggc tgagaaaaat gaggggagat ggaaccagat acaaggagat ccaataagag
aagcttattt aaatattgtg aaataaagga agamccaaag catttttta agtggggaat
                                                                       240
cottttgaac agttattatt tatocatatt attaayaaca tottttotga caaaatocat
                                                                       300
cagatgaagt gtaaatggat aatottttaa tggatctaaa cotagaaagt ttoacttact
                                                                       360
gttcatgtcc gtgttccaga attgtgaaat ggtgtgtggt tttgctttcc aagttcttct
                                                                       420
ctgcctcctc ttaattctct aattccatgt cttacagaag aatgagaaat ttctttctta
                                                                       480
                                                                       540
cttgagtatc atgctctaaa aaacttggct tcagtcacag aaacgctggc tctcctgtgc
                                                                       600
ttatattgaa gccaactgcc tttaattctt gggccctctt atatttttaa ggtgcaaaat
                                                                       660
ttgaagtctc agtcaccaga cacaggttct atacaattaa tgatgagctg gagaagtaat
                                                                       720
atgtagctaa tttttcaaaa gcattgaata tactttccgg aaagaaaaca gaaattaaat
attgccacat cttgccagaa tcccatctga caccttaact ttgtcaggtt tcctacaact
                                                                       780
tgctaatcaa gttttataca ttctaaatct ccccagtttc tttggggctg gaagatgcaa
                                                                       840
cttccattta atagaaactt tgaaatcttg gggtaaggga gcagtggggg gactagggag
                                                                       900
aaggataaga aatagaatta ttgaaaagcc cccaccaggg accttcctgg ccagaatatg
                                                                       960
cagagtaatt cctgctggct tcacctttga aagtccctcg aaactatgca gatgaaactg
                                                                       1020
agtotgtttt tgatattgto agatgtatto tacottggaa gtoconacao otaaaotgga
                                                                       1080
```

```
attettgtat ttacatetce tecactgtee eccacaceae eccteaatte etgetgeece
                                                                         1140
 tgctaatgtt aagcattttt ctcttgttat catcaggttc acattaaaam cagrtactta
                                                                         1200
 caaactgact tgaagcacag atacttttac gaatgtgata aaatattttc ttaagaaaag
                                                                         1260
 gaaagaggat gtgggtcaaa taaaacaccg catggatgtt gattggtgaa tactggtgta.
                                                                         1320
 agaaaaggga gctcaggaat ttttattact gtatttgtaa atgagtttga aggaatttgt
                                                                        1380
 aaatgccact ggtacatttt taaggtgaca catttgctcc ttataaagtt attaaaaatt
                                                                        1440
 acagggtaag cttaaatgac gtttgccagt agttttactt tatataatca atattgatat
                                                                        1.500
 tgttgctgaa ctatgtaact ttatgatgca tttttcagtc ccttttcaga gcaaatgctt
                                                                        1560
 ttgcaatggt agtaatgttt agtttaaatt gacttaataa attmttacct gagcaaaaaa
                                                                        1620
 aaaaa
                                                                        1625
 <210> 159
 <211> 1687
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (334)
 <223> n equals a,t,g, or c
<220>
<221> SITE
<222> (505)
<223> n equals a,t,g, or c
·<220>
<221> SITE
<222> (1044)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1670)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1678)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1683)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1684)
<223> n equals a,t,g, or c
<400> 159
cggggtcacc agttattaga ggaagtaaca caaggggata tgagtgcagc agacacattt
                                                                         60
ctgtccgatc tgccaaggga tgatatctat gtgtcagatg ttgaggacga cggtgatgac
                                                                        120
acatetetgg atagtgacet ggatecagag gagetggeag gagteagggg acateagggt
                                                                        180
ctaagggacc aaaagcgtat gcgacttact gaagtgcaag atgataaaga ggaggaggag
                                                                        240
gaggagaatc cactgctggt accactggag gaaaaggcag tactgcagga agaacaagcc
```

300

```
aacctgtggt teteaaaggg cagetttget gggnategag gaegatgeeg atgaaggeee
                                                                      360
                                                                      420
tggagatcag tcaggcccag ctgttatttg agaaccggyg gaagggacgg cagcagcagc
agaagcagca getgeeacag acaececett eetgtttgaa gaetgagata atgteteeee
                                                                      480
tgtaccaaga tgaagcccct aaggnaacag aggcttcttc ggggacagaa gctgccactg
                                                                      540
                                                                      600
gccttgaagg ggaagaaaag gatggcatct cagacagtga tagcagtact agcaktgagg
                                                                      660
aagaagagag ctgggaaccc tccgtggtaa gaagcgaasc gtgggcctaa agtcagatga
tgacgggttt gagatagtgc ctattgagga cccagcgaaa catcggatac tggaccccga
                                                                      720
aggccttgct ctaggtgctg ttattgcctc ttccaaaaag gccaagagag acctcataga
                                                                      780
                                                                      840
taactccttc aaccggtaca catttaatga ggatgagggg gagcttccgg agtggtttgt
                                                                      900
gcaagaggaa aagcagcacc ggatacgaca gttgcctgtt ggtaagaagg aggtggagca
ttaccggaaa cgctggcggg aaatcaatgc acgtcccatc aagaaggtgg ctgaggctaa
                                                                      960
                                                                     1020
ggctagaaag aaaaggagga tgctgaagaa gctggagcag accaggaaga aggcagaagc
cgtggtgaac acagtggaca tctncagaac gagagaaagt ggcacagctg cgaagtctct
                                                                     1080
acaagaaggc tgggcttggc aaggagaaac gccatgtcac ctacgttgta gccaaaaaag
                                                                     1140
                                                                     1200
gtgtgggccg caaagtgcgc cggccagctg gagtcagagg tcatttcaag gtggtggact
                                                                     1260
caaggatgaa gaaggaccaa agagcacagc aacgtaagga acaaaagaaa aaacacaaac
                                                                     1320
ggaagtaagc agagctgcca ggctcccagg agagcatggg gactaggagg aagggtgtgg
catggctcag totggccccc ttgattaccg gcctagcccc tgctcacatc acagctgtct
                                                                     1380
                                                                     1440
gaagaacagt gaggtggagt gcctagaact cccgtggtgg tcctgagcag agaggaggat
                                                                     1500
gtcctcctgc ctgcctgaag gtctcccatg aaaacactgc tgaactgtgt tgacactcat
                                                                     1560
gaccettttt ttaaaccgtt aaagggaagt teggtgttgg agegataete aatgtagtea
                                                                     1620
gtctacacct ggacgtgtgg gccacttaag ccctccccac ccccatccta ttcctraata
                                                                     1680
aaaccaggat aatggaaraa aaaaaaaaaa aaaaaaaaa ggggggcccn taaagggncc
                                                                     1687
cannttt
<210> 160
<211> 1842
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (19)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (62)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1793)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1834)
<223> n equals a,t,g, or c
<400> 160
ggatgacaga ttgcgacana gatttgtgac ccttcctgct gaacttcaga gggagctgaa
                                                                       60
                                                                      120
ancagogtat gatcaaagac aaaggcaggg cgagaacagc actcaccagc agtcagccag
180
gaaacaagaa gaaaaaaacc attggttcac caaaaaggat tcagagtcct ttgaataaca
                                                                      240
agctgcttaa cagtcctgca aaaactctgc caggggcctg tggcagtccc cagaagttaa
                                                                      300
                                                                      360
ttgatgggtt tctaaaacat gaaggacctc ctgcagagaa acccctggaa gaactctctg
```

```
cttctacttc aggtgtgcca ggcctttcta gtttgcagtc tgacccagct ggctgtgtga
                                                                        420
                                                                        480
gacctccagc acccaatcta gctggagctg ttgaattcaa tgatgtgaag accttgctca
gagaatggat aactacaatt tcagatccaa tggaagaaga cattctccaa gttgtgaaat
                                                                        540
actgtactga tctaatagaa gaaaaagatt tggaaaaact ggatctagtt ataaaataca
                                                                        600
                                                                        660
tgaaaaggct gatgcagcaa tcggtggaat cggtttggaa tatggcattt gactttattc
ttgacaatgt ccaggtggtt ttacaacaaa cttatggaag cacattaaaa gttacataaa
                                                                        720 -
tattaccaga gagcctgatg ctctctgata gctgtgccat aagtgcttgt gaggtatttg
                                                                        780
                                                                        840
caaagtgcat gatagtaatg ctcggagttt ttataatttt aaatttcttt taaagcaagt
                                                                        900
gttttgtaca tttcttttca aaaagtgcca aatttgtcag tattgcatgt aaataattgt
                                                                        960
qttaattatt ttactgtagc atagattcta tttacaaaat gtttgtttat aaagttttat
                                                                       1020
ggatttttac agtgaagtgt ttacagttgt ttaataaaga actgtatgta tatttggtac
rggctccttt tkgtgaaycc ttaaaaactc aactctagga rgcaactact gtttattata
                                                                       1080
ctaaarggct gaaaamcctc caggccagac tgctaagctc tgaaatycct gagaggtctc
                                                                       1140
agaccgggat totacttgtt ccaagaaagg gtaaagcttc taaaccatct tattcttgtc
                                                                       1200
tccaagcatg aacacaggag catgtyaaga aaatctttac tactttctyc catgcggaga
                                                                       1260
aatctacata ttttgaatta gaaacaccct cacacccact tgaagatttt tttcctggga
                                                                       1320
acattatgtc ccgtagatca gaggtggtgt tgtctttttg cttctactgg ccattgagaa
                                                                       1380
                                                                       1440
actttgatga taaaaaagaa cggtatagat ttttcaaacg tatataaaat atttttatgt
                                                                       1500
tatatgttat gccataactt taaaataaaa atagtttaaa attctatgct agtggatatt
                                                                       1560
tggaactttt teeteaaaca aacaeeecae aetgaettea geaaaaeeet aaaaetaget
acagattact actacgaatg aatcatyaag ttttgtgtct gcaacaattt agaagcacta
                                                                       1620
agcccaaata tcaggaaatg tgtgtatgat ggaattttct aggacaaaac agatcaagat
                                                                       1680
taaaacagga tcaaggatta atggtataaa aatggtctac taaaacagga tcaaggatta
                                                                       1740
                                                                       1800
aaacaggatc aaggattaat ggtataaaaa tototactgg ttaccgggtg gcngggccat
                                                                       1842
acagggtagt ggtggatgga tagtttagtt tggnaagggt aa
<210> 161
<211> 770
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (744)
<223> n equals a,t,g, or c
<400> 161
ggcacgagcc ctatgctgtt cttgtgataa tgagtgagtc tcacaagatc tggtggtgtt
                                                                         60
ataggcatct ggcatttccc ctgctgacgc tcattctcta tcctgccacc ctgggaagaa
                                                                        120
                                                                        180
gtgtcttctg tcatgattgt aagtttcctg aggcctcccc agctatgtag aactgtgagc
caattaaacc tottttctct ataaattato cagtottata tatttcttca tagcagtgtg
                                                                        240
                                                                        300
agaacagata ataccgtaaa ttggtatcac agagagtggg gtgttgctat aaacacatct
                                                                        360
gaaaatgtta aagcaaattt ggaactgggt aacaggcaaa ggctggaaca gttkgaagaa
cagttaagaa gaagacagga aaatatgaga aatcttgaaa cttcctagag tcttaaaggt
                                                                        420
ctcagaagac atgaagatgt gggaagcttt ggaactteet agagacttgt ttgaatgget
                                                                        480
ttgaccaaaa tgctgatagt gatatggaca atgaagtcca ggctgagctt atccagacag
                                                                        540
acataagaag ctcgctggga acttgagtaa agatcactct tgctaggcaa agagactggt
                                                                        600
ggcctttttt cctctgccct agagatctgt ggaaatctga acctgagaga gatgatttag
                                                                        660
                                                                        720
ggtatctggc agaagaaata tctaagcggc aaaaccttcm agaggaagca gagcataaac
                                                                        770
gtttgaaaaa tttgcagcct gacnatggga gaccaaagtt aaacccaatt
```

```
<210> 162
<211> 519
<212> DNA
```

<213> Homo sapiens

```
<400> 162
gaatteggea egagetgaga ggeacaggag caacagecag tgeeceetge agaggaceae
tggggtcaca gacttcarac ctgatgacct gggctcagat cccagctctg cacctaccag
                                                                         120
ccgtgtgaca aggtgtcctc tctgagcctc agtcacacac tgccttaacg gttgggcctc.
                                                                         130
atggagetgt ttgtgaaggt taaatgggaa gacataaage aettageeca gageeaagga
                                                                         240
catgctgaat aggataatgg tggcctcctt tggcgctgtg ctggtgcagg tgtgccgagg
                                                                         300
aaytgggcag gggtgacaga tacctctict aacctagttc ctttccaaga acctaattgg
                                                                         360
tgtctctccc tcccccaggc aattggaagg aggaggctgg gccccagccc cagaatacgg
                                                                         420
gaggtttctc accgtggtag ggaaattgct gggttggggg tgtgggcaac cacagtgatc.
                                                                         480
gtctctctgc aggacggatg aggctttgct gacagaggc
                                                                         519
<210> 163
<211> 753
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (720)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (730)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (736)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (741)
<223> n equals a,t,g, or c
<400> 163
ggcacgagcg gcacgagcag ccagttgctg actggcacat ggcctccagc gtcccggctg
                                                                         60
gtgggcacac tagagccgga gggatcttct taattggtaa attggatctt gaagcttcac
                                                                        120
tgtttaaatc ttttcagtgg cttccctttg tacttagaaa aaaatgcaac ttcttctgct
                                                                        180
gggactcate egeteacage etteceetee accetetete tgeeteatge tetgeecetg
                                                                        240
cetgecatge etcegatact cacettttgt acceeageae eegtgeeete tgeecetega
                                                                        300
tetttgeetg getggttget ceteacteag tgtteaggae aaatgeteet ggeeetacee
                                                                        360
catctageca gtctageceg gtctteeetg tetteeetgt tteatteatg getettattg
tttgttwact tgtgtgctgt tgacttttaa ctctctcagt ccccactgga atgcaagcga
                                                                      ` 480.
totoccaago tootagaatt gttootgoot ottoacaggo cottacgotg tgtgtgotog
                                                                        540
tgccgaattc ggcacgaggg tatgtgcact tgctggtatg tatgtaggtg tttgctaaca
                                                                        600
catacgtgca cacgcagaat gcttccaggg gactgcacag cctctagttc gcagccccca
                                                                        660
eccetecett tgsecetgea eteteceete tetgagetge attegeatga aagggtgean
                                                                        720
ggttcctgan cccgcnagcg ncacctcctg gga
                                                                        753
<210> 164
<211> 1893
```

<212> DNA

<213> Homo sapiens

```
<400> 164
togagttttt tttttttt ttttttttkt aatttaaaca aataccaaaa gctttattta
                                                                        60
agcaaaaaca cattcaacca cagaacattc agaaagctaa caggatcatt tctacattca
                                                                       120
ttctgcaaac agtgtagtaa gaaaggtaat ttgagaattt ccaaagatgt tctcgctagc.
                                                                       180
cattatttat ggtaattaca taacattttg atgtcaagtt attacagact taaaagttaa
tatagcataa ttttacaatc gtactttcac tatgattttt attttaaccc tggatattat
                                                                       300
tggtttgaag ctaatattat cagtcctatt ggctgtcact gtcacagatc tgaagatatg
                                                                       360
tttaaattca tcaagctagg aagatatcaa aatattaaca atcttcaagt atagtgagaa
                                                                       420
aaaaactgat ttaagtgtta gcatttctaa acttgagact ctaacagtaa aaacaaagta
                                                                       480
atctgaaacc tgtttccatg ggtaaaacac tctgcctggt attcttgtac acaaaattta
                                                                       540
ctaaatatgt gaatatcata aaatgaaaat atcactccct tcaatttctt tggccttcac
                                                                       600
                                                                       660
aaattcaatg tgactatgat ccttttcaat aatacttyca atgacattgt gcttctttag
aaaaatcact taagttgtag catacaatag ttaacattag ttcttttatt gctatggtat
                                                                       720
atgctaattt ttttaaaagg ggaaaaaaaa acccagagaa cttattaaaa tgtttgttaa
                                                                       780
agcaaacatt tcagttggtt tcctttcttt gaagaataat agaaataaat gtcagaggag
                                                                       840
tattactaag gagccaaaac aaacaaacaa acaaaaaac aaaaaactcc tttattactc
                                                                       900
                                                                       960
ccatcctcag aactaactca agacaagaga tctgtattca aaaagataaa acaatctcat
ctcagtaact acctcctatg aaacctaaga gagaaaacct gtaatagctc tcttaaccaa
                                                                      1020
cagececate tgeacateae caageaceag tteeetttgg gtageagtaa tgettgtttt
                                                                      1080
tcatctttgc atattaagga ctgttgttaa cagatttatg ggtcatttgt agcttacttt
                                                                      1140
                                                                      1200
gcaaatacct ttcacttctt atgaaacaca atatgccccc aaacatggac cattattcaa
                                                                      1260
gtagacaaaa tcactcactg acagcacttt aacaacccgc ctccactyca tcttcccatt
                                                                      1320
ctctcaccct atgccttcca atgaacctag tctttgctag tgatgagtcc atctggggac
aaatactgct ttaaagatga tgtaattttc aatgccaacc acagtgactt tcccataata
                                                                      1380
ggtattaata aacacttgtt gacatagtta taataagcta aaaatagtta acattaattt
tgctctttat cttttattct tatggcatag aatttatttt aaaagactga aaaactgatt
                                                                      1500
ccaatgtaat aatcacttac tgggccacac gctagatgac agacatgcct ccctgcctaa
                                                                      1560
aaagggctca aaggaactct cagttataca tgagtgaatt aaaactttaa atgtactaca
                                                                      1620
agaaagaact ttttatatga aggattettt atgtagagta tettttttga aaaateagat
                                                                      1680
tttcttatcc tatattacac tggttttaat tgggcatgct cactttagtg gtgtgcctca
                                                                      1740
ttacaatgtc tcttttgtgt taagaattaa cttacaaaag catttaaaaa tcactacatc
aaatgggata gagagtaaga agacaggaga gagaggagaa accatgtttt ttcggacgcg
                                                                      1860
                                                                      1893
tgggtcgacc cacgcgtccg cggacgcgtg ggc
```

```
<210> 165
<211> 2153
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (101)
<223> n equals a,t,g, or c
<220> `
<221> SITE
<222> (1670)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2134)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2135)
```

<223> n equals a,t,g, or c

<400> 165						
				ttgcagttct		60
				nctggatggg		120
cagggctcaa	gggctgtggt	ccgctcaggg	tctcatttcc	ccaggccaag	ttcaaggcag	180
				gaactttaag		240
cącagggacg	tggtatgggc	cctgggtgca	ggtgcccacá	ttctgctaat	gagagctttg	300
tctgatcagt	cctgggtcca	tcagtttgtc	catgtgtccg	gctgccagcc	cgtcccttgg	360
gatectteec	ctggggtgta	gccttgttca	ttagtatata	ctcattcctt	catgctttcc	. 420
tcagcagaac	acttccactt	ctgaggtgaġ	cttttgcccc	rtgcccttcc	tccacaggtg	480
ttgccttttt	ataaagacct	gatagcagaa	taaattggtg	tttccctgtt	gacccagcac	540
catttctgtg	ggcctagaat	atggccctca	acccttagag	tggggcagtg	agggcttgag	600
gagtgaccct	tcctttctca	tggttttagt	cattttggct	gccagccctt	aatggcacag	660
atctgctgct	tctaacagat	ggccaggagg	tgacaccgat	ttcagccatt	gccaaggtta	720
gcaccctctc	ctttgagcct	agggccacac	tgttcattgt	cáctttaggc	aagtgcctgt	780
ttggctttaa	aggtaagcct	gccagctgtg	agaagccttg	gtaactgatg	gactcatttc	840
				gatgccatct	'	900
ccagccctgg	tgccactggt	gggcaggttc	ccattctttg	gggctgggag	ggacagcttg	960
				attctgtggc		1020
				tagggtggag		1080
agggtctgga	actgtttggg	accttttggg	gatgtcctgt	gcctcccaga	ttcctmgatt	1140
•				gagcaaagct		1200
				ctgggatttg		1260
				gagacccagc		1320
aatggtagtg	ggcaagtgtg	tgtgcatact	gtctgccact	gctttctccc	tgccccatgc	1380
				caacttggga		1440
acatgggatc	atgggttggg	gtgctcaggt	gagccctctc	tatagtgctt	ccctgggcca	1500
agctgacacc	agcccctgag	ggtggggtgg	gacgggtggt	gcttaaaaga	ggaaggggac	1560
cagtgtagca	acttgccagg	gaccccaccc	ctccctctct	gggcctgtgc	agtgagcatg	1620
gggattccca	tcaaggggcc	tggcacctgt	gctagttacg	tagccgctgn	tcacgcgctc	1680
actcctgacc	acatgcacgt	tccctagatg	cagactgctt	tgaactttaa	agctgtacaa	1740
tttggttatg	tttgtgctga	cttaaaatat	attttaatga	ggaaaaaata	atggagaacc	1800
				agccctcgcg		1860
cgctctctgc	tgctctttcc	tggaagctaa	gcctgtctcc	accgcccgag	gcctgcgccg	1920
gtgctcccgc	cgcagttgcg	tttgctttgg	accttgcgtg	cgggggaggg	ggtgctcggt	1980
ccgagcccgc	tcctttctgt	acacctagcg	ctgcccgccc	cgcttgtgtc	tgaggtcgtg	2040
tatgtcaaaa	ataaagccgc	tagaaacgga	aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	2100
aaactcgagg	gggggcccgt	acccaattaa	cccnntatga	tctataaagc	gtc	2153
				Ť.		
-	•			•		
<210> 166		•		•		
<211> 1251		-		-		
<212> DNA	_				•	
<213> Homo	sapiens			P		
<400> 166						
				gggcgctgat		130
				tcgtcggctt		120
				ttggctggga		180
				tcgtcttcat		240
				gcaagctcct		300
				ttatctctgt		360 420
				gtctgcacag		
ctgatagctg	tcatatgcta	tttgttacag	cttctttcag	gtttttcagt	cerectgett	480 540

ccatgggctc cgctttctct ccgagcattt ctcatgccca tacatgttta ttctggaatt

gtcatctttg gaacagtgat tgcaacagca cttatgggat tgacagagaa actgattttt

tecetgagag atectgeata cagtacatte eegecagaag gtgttttegt aaataegett

540

600

```
ggccttctga tcctggtgtt cggggccctc attttttgga tagtcaccag accgcaatgg
                                                                         720
                                                                         730
aaacgtccta aggagccaaa ttctaccatt cttcatccaa atggaggcac tgaacaggga
gcaagaggtt ccatgccagc ctactctggc aacaacatgg acaaatcaga ttcagagtta
                                                                         840
aacagtgaag tagcagcaag gaaaagaaac ttagctctgg atgaggctgg gcagagatct
                                                                         900
accatgtaaa atgttgtaga gatagagcca tataacgtca cgtttcaaaa ctagctctac
                                                                        960
agtititgctt cicciattag ccatatgata attgggctat gtagtatcaa tatttacttt
                                                                        1020
aatcacaaag gatggtttct tgaaataatt tgtattgatt gaggcctatg aactgacctg
                                                                        1080
aattggaaag gatgtgatta atataaataa tagcagatat aaattgtggt tatgttacct
                                                                        1140
ttatcttgtt gaggaccaca acattagcac ggtgccttgt gcakaataga tactcaatat
                                                                       1200
gtgaatatgt gtctactagt agttaattgg ataaactggc agcatccctg a
                                                                       1251
<210> 167
<211> 882
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (522)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (752)
<223> n equals a,t,g, or c
<400> 167
gacsmtctag aactatggtc ccccgggact gcaggaattc ggcacagcgg ctgcgggcgc
                                                                         60
gaggtgaggg gcgcgaggtt cccagcagga tgccccggct ctgcaggaag ctgaagtgag
                                                                        120
aggcccggag agggcccagc ccgcccgggg caggatgacc aaggcccggc tgttccggct
                                                                        180
gtggctggtg ctggggtcgg tgttcatgat cctgctgatc atcgtgtact gggacagcgc
                                                                        240
aggegeege cacttetact tgeacaegte ettetetagg eegeacaegg ggeegeeget
                                                                        300
gcccacgccc gggccggaca gggacaggga gctcacggcc gaytccgatg tcgacgaktt
                                                                        360
tctggacaak tttctcagtg ctggcgtgaa gcagagtgac yttcccagaa aggagacgga
                                                                        420
gcagccgcct gcgccgggga gcatggagga gagcgtgaga rgctacgact ggtccccgcg
                                                                        480
cgamgcccgg cgcacccaga ccagggccgg cagcargcgg ancggaggar cgtgctgcgg
                                                                        540
ggettetgeg ceaayteeag eetggeette eecaceaagg agegegeatt craegacate
                                                                        600
                                                                        660
cccaactcgg agctgagcca cctgatcgtg gacgaccggc acggggccat ctactgctac
gtgcccaagg tggcctgcac caactggaag cgcgtratga tcgtgctgag cggaagctgt
                                                                        720
gcaccgcgtg cgcctaccgc gacccgytgc gntcccgcgc gagcacgtgc acaacgccag
                                                                        780
                                                                        840
cgcgcactga cttcaacaat tctggcgccg ctacgggaag tctcccccac ctcatgaagt
                                                                        882
caageteaag aatacaceaa ttetteetge gegaceette tg
<210> 168
<211> 1208
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (161)
<223> n equals a,t,g, or c
<400> 168
ttcagaggaa aaataagttc tgtatatgtt ttagctaaat agtattattt ttgtcatatt
                                                                         60
cccaaattgg aagtcccagt acatattagc ctattacaat tctaagttat ttgcagtaaa
                                                                        120
```

							•
	gaatatagat	gaagctggtc	tcatttctat	tttccaagtk	nytgggggcc	atagtgattt	180
					cagagcacaa		240
	tatggcaaag	taaaaaagaa	aacactgaat	ttcaacttgg	aaaatcagaa	tgctgttgct	300
	aatagtatta	gtagcaaata	tattaagtat	gtcaaatatg	tcaaatgctg	ttgtaagtga	360
					taagtaatat		420
					tactcaccca		480
					taagatttta		540
					aagctatttt		600
					wgtggskgtc		660
					ttggtactca		720
					cctagctgtg		780
					tgtgctgagy		840
					aatcattaat		900
					tcacgtactg		960
					tcaactgagg		1020
					ctgtcctgtc		1080 1140
					atacgtaaat		1200
		tcccttyact	tctaggetet	ggetecatea	accattccat	catecticity	1208
	agtttccc						1208
						-	
	<210> 169					-	•
•	<211> 1258						~
	<212> DNA						
•	<213> Homo	sapiens					
		- · L					
	<400> 169		,		*	•	
	ggcacgagag	aaaagaggtt	gagaatgttt	tctagcaggc	agaatgtgca	tacatgtttt	. 60
	catgagtgtc	ctttgggtgc	tgtttcttt	aaatcctctg	tgcacagggc	tctggccttt	120
	agtaaactgt	ttttctgtct	tacgtcatgc	tgactgggtg	ctaggggctg	attacaaagg	180
	ggaagagttg	aacagacatc	aggggccgat	gaaaccaaag	gactaggagt	caggagaaca	240
					cagctggagg		300
					agtctcacag		360
					gtcatacgag		420
					ccatgggtta		480
					taccttctga		540
					aacttggtgg		600 660
					taattcgatt		720
					acctgctttg		780
					ccagtgtcţg		840
					acagggcaga- tggacatgat		900
					ccgcactcag		960
					cccacagcc		1020
					ttggcgtttc		1080
	gctgatctct	ctctctatac	actcgtgatc	catottoaac	aatacatgta	ggttctttt	1140
	ccacgcaatg	taagaacatg	atatactgta	cattagaaag	catttacctt	atttatatac	. 1200
	ctgaatgttc	ctactacaca	aataaacata	tattaaattc	taaaaaaaaa	aaaaaaaa	1258
	`			•			
	<210> 170						
	<211> 1624						
	<212> DNA			•			
	<213> Homo	sapiens					
	4				_		
	<400> 170						
	ggcacgaggt	cgccgccgcg	gccgcctgga	attgtgggag	ttgtgtctgc	cacteggetg	60
	ccggaggcga	aggtecetga	ctatggctcc	ccagagcctg	ccttcatcta	ggatggctcc	120

180

840

tctgggcatg ctgcttgggc tgctgatggc cgcctgcttc accttctgcc tcagtcatca

```
gaacctgaag gagtttgccc tgaccaaccc agagaagagc agcaccaaag aaacrgagag
                                                                       240
aaaagaaacc aaagccgagg aggagctgga tgccgaagtc ctggaggtgt tccacccgac
                                                                       300
gcatgagtgg caggecette agecagggea ggetgteeet geaggateee aegtaegget.
                                                                       360
gaatetteag aetggggaaa gagaggeaaa aetecaatat gaggacaagt teegaaataa
                                                                       420
tttgaaaggc aaaaggctgg atatcaacac caacacctac acatctcagg atctcaagag
                                                                       480
tgcactggca aaattcaagg agggggcaga gatggagagt tcaaaggaag acaaggcaag
                                                                       540
gcaggctgag gtaaagcggc tcttccgccc cattgaggaa ctgaagaaag actttgatga
                                                                       600
gctgaatgtt gtcattgaga ctgacatgca gatcatggta cggctgatca acaagttcaa
                                                                       660
tagttccagc tccagtttgg aagagaagat tgctgcgctc tttgatcttg aatattatgt
                                                                       720
ccatcagatg gacaatgege aggacetget tteetttggt ggtetteaag tggtgateaa
                                                                       780
tgggctgaac agcacagagc ccctcgtgaa ggagtatgct gcgtttgtgc tgggcgctgc
                                                                       840
cttttccagc aaccccaagg tccaggtgga ggccatcgaa gggggagccc tgcagaagct
                                                                       900
getggteate etggeeaegg ageageeget caetgeaaag aagaaggtee tgtttgeaet
                                                                       960
gtgctccctg ctgcgccact tcccctatgc ccagcggcag ttcctgaagc tcggggggct
                                                                      1020-
gcaggtcctg aggaccctgg tgcaggagaa gggcacggag gtgctcgccg tgcgcgtggt
                                                                      1080
cacactgctc tacgacctgg tcacggagaa gatgttcgcc gaggaggagg ctgagctgac
                                                                      1140
ccaggagatg tccccagaga agctgcagca gtatcgccag gtacacctcc tgccaggcct
                                                                      1200
gtgggaacag ggctggtgcg agatcacggc ccacctcctg gcgctgcccg agcatgatgc
                                                                     .1260
ccgtgagaag gtgctgcaga cactgggcgt cctcctgacc acctgccggg accgctaccg
                                                                      1320
tcaggaccec cageteggea ggacaetgge cageetgeag getgagtace aggtgetgge
                                                                      1380
cagcctggag ctgcaggatg gtgaggacga gggctacttc caggagctgc tgggctctgt
                                                                      1440
                                                                      1500
caacagettg etgaaggage tgagatgagg eeceacacea ggaetggaet gggatgeege
tagtgaggct gaggggtgcc agcgtgggtg ggcttctcag gcaggaggac atcttggcag
                                                                      1560
1620
                                                                      1624
<210> 171
<211> 2003
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1961)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1999)
<223> n equals a,t,g, or c
<400> 171
                                                                       60
ggcacgagcc agcttgcagg aggaatcggt gaggtcctgt cctgaggctg ctgtccgggg
ccggtggctg ccctcaaggt cccttcccta gctgctgcgg ttgccattgc ttcttgcctg
                                                                       120
ttctggcatc aggeacctgg attgagttgc acagetttgc tttatccggg cttgtgtgca .
                                                                       180
gggcccggct gggctcccca tctgcacatc ctgaggacag aaaaagctgg gtcttgctgt
                                                                       240
geceteceag gettagtgtt ecetecetea aagaetgaea gecategtte tgeaegggge
                                                                       300
tttctgcatg tgacgccagc taagcatagt aagaagtcca gcctaggaag ggaaggattt
                                                                      360
tggaggtagg tggctttggt gacacactca cttctttctc agcctccagg acactatggc
                                                                       420
                                                                       480
ctgttttaag agacatctta tttttctaaa ggtgaattct cagatgatag gtgaacctga
gttgcagata taccaactic tgcttgtatt tcttaaatga caaagattac ctagctaaga
                                                                      540
aacttcctag ggaactaggg aacctatgtg ttccctcagt gtggtttcct gaagccagtg
                                                                      600
atatgggggt taggatagga agaactttct cggtaatgat aaggagaatc tcttgtttcc
                                                                      660
                                                                      720
tcccacctgt gttgtaaaga taaactgacg atatacaggc acattatgta aacatacaca
                                                                      780
cgcaatgaaa ccgaagcttg gcggcctggg cgtggtcttg caaaatgctt ccaaagccac
```

cttagcctgt totattcagc ggcaacccca aagcacctgt taagactcct gacccccaag

```
900
tggcatgcag cccccatgcc caccgggacc tggtcagcac agatcttgat gacttccctt
                                                                      960
tctagggcag actgggaggg tatccaggaa tcggcccctg ccccacgggc gttttcatgc
tgtacagtga cctaaagttg gtaagatgtc ataatggacc agtccatgtg atttcagtat
                                                                     1020
atacaactoc accagaccoc tocaaccoat ataacaccoc accootgito gottootgia.
                                                                     1080
tggtgatatc atatgtaaca tttactcctg tttctgctga ttgttttttt aatgttttgg
                                                                     1140
tttgtttttg acatcagctg taatcattcc tgtgctgtgt tttttattac ccttggtagg
                                                                     1200
tattagactt gcactttttt aaaaaaaggt ttctgcatcg tggaagcatt tgacccagag
                                                                     1260
                                                                     1320
tggaacgcgt ggcctatgca ggtggattcc ttcaggtctt tcctttggtt ctttgagcat
ctttgctttc attcgtctcc cgtctttggt tctccagttc aaattattgc aaagtaaagg
                                                                     1380
atctttgagt aggttcggtc tgaaaggtgt ggcctttata tittgatccac acacgttggt
                                                                     1440
                                                                     1500
cttttaaccg tgctgagcag aaaacaaaac aggttaagaa gagccgggtg gcagctgaca
gaggaagccg ctcaaatacc ttcacaataa atagtggcaa tatatatata gtttaagaag
                                                                     1560
gctctccatt tggcatcgtt taatttatat gttatgttct aagcacagct ctcttctcct
                                                                     1620
attiticatice tgeaageaac teaaaatatt taaaataaag titaeattigt agtitattite
                                                                     1680
aaatctttgc ttgataagta ttaagaaata ttggacttgc tgccgtaatt taaagctctg
                                                                     1740
ttgattttgt ttccgtttgg atttttgggg gaggggagca ctgtgtttat gctggaatat
                                                                     1800
gaagtetgag acetteeggt getģggaaca cacaagagtt gttgaaagtt gacaagcaga
                                                                     1860
                                                                     1920
etgegeatgt etetgatget tigtateatt ettgageaat egeteggtee giggaeaata
aacagtatta tcaaagagaa aaaaaaaaaa aaaaaactcg ngggggggcc cggtacccaa
                                                                     1980
                                                                     2003
ttcgccctat agtgagccna ttc
<210> 172
<211> 786
<212> DNA
<213> Homo sapiens
<400> 172
                                                                       60
ggcacagcgg cacgagaaga ctttggtgtt taagagatta atgtgttagc cagaacaact
                                                                      120
cattleteta cemgigigia giccattlat etitaaagat titetaitgg aataattitg
aaattacttt cttaqttttc ttcattaaaa actaagaaaa tgctttgttt attatgaatt
                                                                      180
                                                                      240
gctatttctc ttgattatta ttcttggaga aagtctatca gacgtaattc ttctgatttg
                                                                      300
cttctaggct agaggaaaat gtgaaagatg acaaatgaaa atttcaaagg ttgtcagtag
                                                                      360
tatgacttct titatcgttt gtcattatca caaatatatc aacataggac ttttaaaaga
                                                                      420
tattttgtac atattgggcc ttagtaggat tttgcatgaa ttttttttt cttttatgcc
                                                                      480
cagagagaaa gagcaaagaa ataaccaagg gtgatgtact cgtattgaag gtttaccaaa
                                                                      540
taaggactgc ttttattatg aactatagtc tatattctaa gtaaatcaat ttttctatta
                                                                      600
tgtgtttttt gttcctgcag gcaagatctc tgaactttat gcagagggtt cttttaaaaa
                                                                      660
aacaaagttq aatttttta tttcttggaa tattttttt cattgatttc tcccaagtag
agcagattca aatctccttt gtaccctatg tcttttttgt ttttgctatta gctcagtatt
                                                                      720
780
                                                                      786
actcga
<210> 173
<211> 1758
<212> DNA
<213> Homo sapiens
<400> 173
gggacgagcc ctgcccacct cctgcagcct cctgcgcccc gccgagctgg cggatggagc
                                                                       60
                                                                      120 -
tgcgcacggg gagcgtgggc agccaggcgg tggcgcggag gatggatggg gacagccgag
                                                                      180
atggcggcgg cggcaaggac gccaccgggt cggaggacta cgagaacctg ccgactagcg
                                                                      240
cctccgtgtc cacceacatg acagcaggag cgatggccgg gatcctggag cactcggtca
                                                                      300
tgtacccggt ggactcggtg aagacacgaa tgcagagttt gagtccagat cccaaagccc
agtacacaag tatctacgga gccctcaaga aaatcatgcg gaccgaagct tctggaggcc
                                                                      360
                                                                      420
cttgcgaggc gtcaacgtca tgatcatggg tgcagggccr gcccatgcca tgtattttgc
                                                                      480
```

ctgctatgaa aacatgaaaa ggactttaaa tgacgttttc caccaccaag gaaacagcca

cctagccaac ggtattttga	aagcgtttgt	ctggagttag	aaagttctct	tcttcaacac	540
gtccctccc agggtgttcc	tccctgtgac	ccagccgcct	cgacttcggc	ccgcttgctc	600
acgaataaag aactcagagt	tatatataca	atgcacaccc	agacacacgc	acgcacacac	660
acgcgcgcgc acacacatgc	trttttctat	tecettecae	tttctgaagc	ctggggagaa	720
atcagtgaca gaggtgtttt	ggttttattg	ttatgtgggt	tttcttttgt	atttttttg	780
tttgttttgt ttttaaacat	tcaaaagcaa	ttaatgatca	gacataggag	aaaccctgaa	840
tagaaacaaa acttttgaat	cctacattca	aaaaaaaaaa	aaagttatct	ggacagette	900
tttgagacta tttaaaaact	getggattea	atctctacaa	caccaagate	taactaagct	960
tttgagacta tttaaaaact	ggtacaacag	aagactcgc	acaecacada	aggcctttcc	1020
ttaaaaggtc aagaagtttt	atgyctyaca	taggactege	ctcttctctt	tatctaaatc	1080
caccttaagc ttccggggat	ctgggaattt	Lacecccatt	ttatttaaa	adadadada	1140
tcatctctct gcaagcaagg	gctgaaatca	ttttgtttgg	cigicityay	gyayayayyc	1200
ggggtggggg ggtgcaaatc	tgccagcagc	tcttacgtaa	ggcatgttt	accggggagg	1260
gctgagcttt tattttctcc	tctccagtgg	ggttggcttt	tattgtttct	tgtttgggtt	
tggaatggaa atatggatag	cagcataaag	tacttttatt	ttgacaaaat	tcatttttt	1320
caacaatgga gacatagatt	tgacccacaa	taacttctcc	ccctctcttt	ttactctgct	1380
caaaaagcat ctctcctccc	attacccaac	cttggtcata	agtgtgcctg	gctggtttgc	1440
agatatttgt tctgctttgt	. aaaaattggc	cattagtgca	tttattgaga	tgatctctaa	1500
agagetatge cetgacetae	ccctgattct	atgacattgg	ggcccttctt	ttgctgaaac	1560
tgccttacgt aatggtttta	ctccttgaaa	gagatttgac	ggaatccatt	ttatgccaag	1620
tgctgccctg cactgtttct	gcaatatgtg	gtgtatgctg	tggtgatctt	gctgggaatg	1680
attataagtg tgtgtgtggt	gaaaaatgg	gtattacatg	cattgctgaa	gagtcaaaaa	1740
aaaaaaaaa aaactcga		-	-	•	1758
daddaddad dadoog.					

```
<210> 174
<211> 1369
<212> DNA
<213> Homo sapiens
```

<400> 174 60 tttttcctct gggattatat cagaatacaa ctgaatgagc gattgggttg atcccggata 120 actgtgtcca tgggttatag tagaatcttg gccacatggg agactgctat tagctactgg 180 aggtgctgct ggtaaagcag gtgtaaaaga aggcctcact ggggactgct ggaagctggt 240 300 cccagaaaga tttccatgtc cctgcttcac agaagaaaaa tttgggcttc caacagggat 360 tgatggtgaa tcaggaacaa atgaaggagg gcctacctgc cttcgctcat tagtctgcat gaaagtttgg gtggagggtg aattaattga teettgttgt atattetget getgtaaaae 420 ctgccccatt tgctgttggt gttgtggaga ctgctgaagg ggtcctagag gttgcataaa 480 540 atcacaaggt aagtcggaac tgtagaaggg aatctgggac acagatgtcc tactactact 600 tatctcagag cccaccatac catgctgctc catttccatc ctctgctgca aagctctttg 660 tctatctacc tcctgcatga gttggatccg ttgtctctct tgctgttctc gtaaacgttc 720 cttacgttcc cgttcttgaa aactttcact aaagggattg ttgtcatcaa attctacccg aggtggtgks tcactctgtg gatttgcatt tgagactgtc cctgggggctg gtgtacaagt 780 ttttattggt aactgggcaa ttggggggctg aattctagga ggattgaggg gcaggtgggc 840 agragcactg ttgggttgcc atccaggtaa actgggcatt ctaacagggc tagtatggcc 900 agaaataact gttgtgtgct gctggtgctg aagctgctgt ggcaccatgg gaaaggtggg 960 ttggctcatg gtgggtggag tggcacctgg aattaggggt ggctggggct ggacactggg 1020 catcatggta ggtggggcca ttgcacattg ctgctgctgt ttgatccgat aatcttcaat 1080 caattcagca tgttctttct gttgtttacg aatctgttct agctgtttct gaaccatgct 1140 1200 ttgctgttca gtaacatgct tgagttgttc tgcatcttcc tctggaaatt cacgcccagc tttcttggca gtacgttgtt tagctgaaag ggccttctta gattttctgt gagcaccaat 1260 ttgttcttca agatacttct gctgcatttg aagcagctgt tgggtctcct ggrgccactc 1320 1369 ttcatactgc ttacgctgtg aatcattgac aaagccggga ccaaaattt

<210> 175 <211> 2379

<212> DNA

```
<213> Homo sapiens
<220>
<221> SITE
<222> (44)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1881)
<223> n equals a,t,g, or c
<400> 175
                                                                       60
ggcagagcta gtgtggactc catccccctg gagtgggatc acgnctatga cctcagtcgg
                                                                      120
gacctggagt ctgcaatgtc cagagctctg ccctctgagg atgaagaagg tcaggatgac
                                                                      180
aaagatttct acctccgggg agctgttgsc ttatcagggg accacagtgc cctagagtca
cagatccgac aactgggcaa agcctggatg atagccgctt tcagatacag caaaccgaaa
                                                                      240
atatcattcg cagcaaaact cccacggggc cggagctaga caccagctac aaaggctaca
                                                                      300
                                                                      360
tgaaactgct gggcgaatgc agtagcagta tagactccgt gaagagactg gagcacaaac
                                                                      420
tgaaggagga agaggagagc cttcctggct ttgttaacct gcatagtacc gaaacccaaa
                                                                      480
cggctggtgt gattgaccga tgggagcttc tccaggccca ggcattgagc aaggagttga
                                                                      540
ggatgaagca gaacctccag aagtggcagc agtttaactc agacttgaac agcatctggg
                                                                      600
cctggctggg ggacacggag gaggagttgg aacagctcca gcgtctggaa ctcagcactg
acatccagac catcgagctc cagatcaaaa agctcaagga gctccagaaa gctgtggacc
                                                                      660
accgcaaagc catcatcctc tccatcaatc tctgcagccc tgagttcacc caggctgaca
                                                                      720
gcaaggagag ccgggacctg caggatcgct tgtsgcagat gaatgggcgc tgggaccgag
                                                                      780
tgtgctctct gctggaggag tggcggggcc tgctgcagga tgccctgatg cagtgccagg
                                                                      840
gtttccatga aatgagccat ggtttgcttc ttatgctgga gaacattgac agaaggaaaa
                                                                      900
atgaaattgt ccctattgat tctaaccttg atgcagagat acttcaggac catcacaaac
                                                                      960
                                                                     1020
agcttatgca aataaagcat gagctgttgg aatcccaact cagagtagcc tctttgcaag
                                                                     1080
acatgtcttg ccaactactg gtgaatgctg aaggaacaga ctgtttagaa gccaaagaaa
                                                                     1140
aagtccatgt tattggaaat cggctcaaac ttctcttgaa ggaggtcagt cgtcatatca
                                                                     1200
aggaactgga gaagttatta gacgtgtcaa gtagtcagca ggatttgtct tcctggtctt
                                                                     1260
ctgctgatga actggacacc tcagggtctg tgagtcccay atcaggaagg agcaccccaa
                                                                     1320
acagacagaa aacgccacga ggcaagtgta gtctctcaca gcctggaccc tctgtcagca
gtccacatag caggtccaca aaaggtggct ccgattcctc cctttctgag ccarggccag
                                                                     1380
gteggteegg eegeggette etgtteagag teeteegage agetetteee etteagette
                                                                     1440
                                                                     1500
tectgetect ceteateggg ettgeetgee ttgtaceaat gteagaggaa gaetaeaget
                                                                     1560
gtgccctctc caacaacttt gcccggtcat tccacccat gctcagatac acgaatggcc
ctcctccact ctgaactaag cagatgccat ctgcagaagt gctggtagca taaggaggat
                                                                     1620
cgggtcataa gcaatcccaa actaccaaca agaggacctt gatcttggcg aaagccmtcg
                                                                     1680
                                                                     1740
gtgtggcagc titagcctcc tccagatcac atgtgtgcaa attatggctt cagaggtgga
agataaacag tgacggggga acaaacagac aacaagaagg tttggaagaa atctggtttg
                                                                     1800
                                                                     1860 -
agactetgaa cettageact aaggagattg agtaaggace tecaaagtte eeeggactea
                                                                     1920
tgaattctgg gcccttggcc nattctgtgc acagccaagg acttcagtag accatctggg
                                                                     1980
cagettteec atggtgetge tecaaceate agataaatga cecteecaag caceatgtea
gtgtcgtaca atctaccaac caaccagtgc tgaagagatt ttagaacctt gtaacataca
                                                                     2040
atttttaaga gettatatgg cagetteett tttaeettgt ttteetttgg ggeatgatgt
                                                                     2100
                                                                     2160
tttaaccttt gctttagaag cacaagctgt aaatctaaaa ggcacttttt tttagaggta
                                                                     2220
taaagaaaaa ctagatgtaa taaataagat catggaaggc tttatgtgaa aaaagttgaa
                                                                     2280
tgttatagta aaaaaaaag atatttatgt atgtacagtt tgctaaagcc aagttttgtt
2340
                                                                     2379
tcgagggggg gcccggtacc caattcgccc tatagtgag
```

<210> 176 <211> 1348

<212> DNA

<223> n equals a,t,g, or c

```
<213> Homo sapiens
<220>
<221> SITE
<222> (407)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (408)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1331)
<223> n equals a,t,g, or c
<400> 176
gegeetteae gatgeeggeg gteagtggte eaggteeett attetgeett etecteetge
                                                                         60
tectggacce ccacageet gagacggggt gteeteetet acgeaggttt gagtacaage
                                                                        120
tcagcttcaa aggcccaagg ctggcattgc ctggggctgg aatacccttc tggagccatc
atggaggtga ggggcagggg tggggaccgc tatgcccagg gtccctcaaa gtgctggagg
                                                                        240
ggctgtract tggtggggag tgggtctgtc acagccatcc tctgtccagg gtggggcaag
                                                                        300
gcctgggaca gtgccaggca ccccaggacc ccttccaggc ttgtctcctg ctccaccgcc
                                                                        360
                                                                        420
tcaacacccc ccaccctgc ccaagctgtt tctcctctgc ctctctnntt ccctgcccca
ggacttetet etteteetet geeteteett ggacceetge eetteeteta eetetgacet
                                                                        480
                                                                        540
gtgaacacac agacacatgc tcacacacta agtcccargc acacmsaaag gcaatgtgga
                                                                        600
ccagcacaaa cctccactct cccggctcca tcccarcggg cctgtggctg gccatgaaaa
ctgggggcta cctggaggga agcatcctca tcccaggtga gtgggcacca gcccttccct
                                                                        660
gtatgtgtgt tgtgggtgga agcaggcatg agagcatctt agcccatagg tttgtattca
                                                                        720
                                                                        780
gggacttcca aacccagacc tacaaagagt gtgtcttcta ccagatcttg ttcaaaaaaag
ggtttgtgat gatggaacta cacgatagag ggagtgagca agaacaatga ggattagagt
                                                                        840
ggagcgtgaa atagtctagg agcatggctt ccaaaacata tgctgtgagg tctgtccacc
                                                                        900
tgagagttgg gccatggatt taattctgag cctcttagca ggcaaagcaa agacagaaag
                                                                        960
cagategget gtggatttet gtetataaaa tgtgagttet tggeegggtg eggtggetea
                                                                       1020
                                                                       1080
cgcctgtaat cccggcgctt tgggaggcca gggcggatgg gtcgcgaggt caggaggttg
gaaaccatcc tggccggaat ggtgaagccc tgactctact agaagtgcaa agattggctg
                                                                       1140
ggtgtggtgg cgtgcgcctg tggtcccagc ttctcgggag gctgaggcgg gagagttgct
                                                                       1200
tgggcctggg aggccgaggt tgcggtgagc tgagatcctg ccattgcact tcagcctggg
                                                                       1260
                                                                       1320
cacagagcca gactctggct caaaaaaaaa aaaaaaaaa actcgagggg ggcccgtacc
caattcgccg natatgatcg taaacaat
                                                                       1348
<210> 177
<211> 1502
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (446)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (470)
```

```
<220>
<221> SITE
<222> (1024)
<223> n equals a,t,g, or c
<400> 177
ctcaaaataa ataaataaat aaaaatttgt attccattga tttgggtaga caccaggaat
                                                                       60
gtgcatttct aacaagcttt ccaggcgatc ctatagtaag tcatctgtgg actactttaa
                                                                      120
gaaactette tatagagaat ggagttggat taataatagg tgatttttta caetggaetg
attcacaaga acctaaacag tagtccatga agctgctcat ctgtggtaac tatttggccc
                                                                      240
                                                                      300
cgtctcactc tgaaagcagc aggagatgtt gtttacttttg tttctatccc ctttgtctgg
agattaattt tggaatgaaa gtttttctct ctatgccatt cctggttctt ttccaaagcc
                                                                      360
tcatacaaga ggattaggtc acaatgcatg cattaccttt taaaagaatg cgatattgat
                                                                      420
accgatgett actititit tittinacta citgititat tecticcagn aaagtatage
                                                                      480
ccgcctttct atagcatagt tctctttagg tggaatgatt cctataagat ttctcattat
                                                                      540
                                                                      600
taaatcatgc atttttcaag atggaatcaa tmtttgattt aatctaagct gatattctca
                                                                      660
tttgttagaa gaacaaccta catgctagag agagaggagg aaatataccc acgaccacac
agccagttag tatccagttg gtgctggact ccagccaggt gtcctgcctc atggtagtta
                                                                      720
                                                                      780
aatgatatat agaaaaggta aatttttaaa gaaatattta ttaatatatt cctataaaac
attttaaagg taaccacata aaaatggtta atttttccat tccaaagtaa atgctaagca
                                                                      840
                                                                      900
tgtttattaa tgaagcagta cttctgatta gtatatgaca ttctgaagtt aattaaactc
attgcactaa atgtgtcttc cttggtatag tggaggattt gaggattgga atatagagta
                                                                      960
gagtgcttgc ttaagcctgg gagcccatct ttatagctat ttgatgtaag aaaagagaca
                                                                     1020
tggnccattt ctaaactata taaggtgagt gtgtctattc ccagcagata taaaggaaaa
                                                                     1080
aggaaacttt tttgattccc accttcccag cctcacctag ccatcttcca gcctcaaata
                                                                     1140
tagagatgtt agtgcaaggt cctgggctct aggtgatcat ttcataagtc ctttacagat
                                                                     1200
aaagaaaaag tagtgtttgt atgtttgttt ttaagtaacc ccaaaacaaa tttatattgt
                                                                     1260
attcagcaaa attggaattc aggtgtttaa ttttagaaca tgaagtgcct gctgttttaa
                                                                     1320
gcattgactt gtataaaaag aattgcatgt ctccagtaag cttatgggtt ttctcatttt
                                                                     1380
taggtatatg gcttttaatc atgtaaagtg aaacattagt tttcttgcat tttattacag
                                                                     1440
1502
ga
<210> 178
<211> 1637
<212> DNA
<213> Homo sapiens
<400> 178
attttctagc ccacaaggac tgaagttcag atccaaaagt tcacttgcta attatcttca
                                                                       60
caaaaatgga gagacttctc ttaagccaga agattttgat tttactgtac tttctaaaag
                                                                       120
                                                                       180
gggtatcaag tcaagatata aagactgcag catggcagcc ctgacatccc atctacaaaa
ccaaagtaac aattcaaact ggaacctcag gacccgaagc aagtgcaaaa aggatgtgtt
tatgccgcca agtagtagtt cagagttgca ggagagcaga ggactctcta actttacttc
                                                                       300
cactcatttg cttttgaaag aagatgaggg tgttgatgat gttaacttca gaaaggttag
                                                                       360
aaagcccaaa ggaaaggtga ctattttgaa aggaatccca attaagaaaa ctaaaaaagg
                                                                       420
atgtaggaag agctgttcag gttttgttcm aagtgatagc aaaagagaat ctgtgtgtaa
                                                                       480
taaagcagat gctgaaagtg aacctgttgc acaaaaaagt cagcttgata gaactgtctg
                                                                       540
catttctgat gctggagcat gtggtgagac cctcagtgtg accagtgaag aaaacagcct
                                                                       600
                                                                       66.0
tgtaaaaaaa aaagaaagat cattgagttc aggatcaaat ttttgttctg aacaaaaaac
                                                                       720
ttctggcatc ataaacaaat tttgttcagc caaagactca gaacacaacg agaagtatga
                                                                       780
ggatacettt ttagaatetg aagaaategg aacaaaagta gaagttgtgg aaaggaaaga
                                                                       840
acatttgcat actgacattt taaaacgtgg ctctgaaatg gacaacaact gctcaccaac
caggaaagac ttcactgaag ataccatccc acggaacaca gatagaaaga aggaaaacaa
                                                                       900
gcctgtattt ttccagcaaa tataacaaag aagctcttag cccccacga cgtaaagcct
                                                                      960
                                                                      1020
ttaagaaatg gacacctcct cggtcacctt ttaatctcgt tcaagaaaca ctttttcatg
                                                                      1080
atccatggaa gottotoato gotactatat ttotoaatog gacotoaggo aaaatggoaa
```

```
1140
tacctgtgct ttggaagttt ctggagaagt atccttcagc tgaggtagca agaaccgcag
actggagaga tgtgtcagaa cttcttaaac ctcttggtct ctacgatctt cgggcaaaaa
                                                                    1200
ccattgtcaa gttctcagat gaatacctga caaagcagtg gaagtatcca attgagcttc
                                                                    1260
                                                                    1320
atgggattgg tgcaccctga agaccacaaa ttaaataaat atcatgactg gctttgggaa
aatcatgaaa aattaagtot atottaaact otgoagottt caagotoato tgttatgoat
                                                                    1380
                                                                    1440
agetttgeae tteaaaaaag ettaattaag tacaaccaae cacettteea gecatagaga
tittaattag cccaactaga agcctagtgt gtgtgctitc ttaatgtgtg tgccaatggt
                                                                    1500
ggatctttgc tactgaatgt gtttgaacat gttttgagat ttttttaaaa taaattatta
                                                                    1560
1620
                                                                    1637
aaaaaaaaa aaaaaaa
<210> 179
<211> 2911
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (622)
<223> n equals a,t,g, or c
<400> 179
ggtggttttt gttctgcaat aggcggctta gagggagggg ctttttcgcc tatacctact
                                                                      60
gtagcttctc cacgtatgga ccctaaaggc tactgctgct actacggggc tagacagtta
                                                                     120
                                                                     180
ctgtctcagc tctaggatgt gcgttcttcc actagaagct cttctgaggg aggtaattaa
                                                                     240
aaaacagtgg aatggaaaaa cagtgctgta gtcatcctgt aatatgctcc ttgtcaacaa
tgtatacatt cctgctaggt gccatattca ttgctttaag ctcaagtcgc atcttactag
                                                                     300
tgaagtattc tgccaatgaa gaaaacaagt atgattatct tccaactact gtgaatgtgt
                                                                     360
gctcagaact ggtgaagcta gttttctgtg tgcttgtgtc attctgtgtt ataaagaaag
                                                                     420
atcatcaaag tagaaatttg aaatatgctt cctggaagga attctctgat ttcatgaagt
                                                                     480
540
atcttcaacc agccatggct gttatcttct caaattttag cattataaca acagctcttc
                                                                     600
tattcaggat agtgctgaag angcgtctaa actggatcca gtgggcttcc ctcctgactt
                                                                     660
tatttttgtc tattgtggcc ttgactgccg ggactaaaac tttacagcac aacttggcag
                                                                     720
                                                                     780
gacgtggatt tcatcacgat gcctttttca gcccttccaa ttcctgcctt cttttcagaa
                                                                     840
atgagtgtcc cagaaaagac aattgtacag caaaggaatg gacttttcct gaagctaaat
ggaacaccac agccagagtt ttcagtcaca tccgtcttgg catgggccat gttcttatta
                                                                     900
tagtccagtg ttttatttct tcaatggcta atatctataa tgaaaagata ctgaaggaag
                                                                     960
ggaaccaget caetgaarge atetteatae agaacageaa aetetattte tttggeatte
                                                                    1020
tgtttaatgg gctgactctg ggccttcaga ggagtaaccg tgatcagatt aagaactgtg
                                                                    1080
gattttttta tggccacagt gcattttcag tagcccttat ttttgtaact gcattccagg
                                                                    1140
gcctttcagt ggctttcatt ctgaagttcc tggataacat gttccatgtc ttgatggccc
                                                                    1200
                                                                    1260
aggitaccae tgtcattate acaacagigt etgtcetggt etitgaette aggecetece
                                                                    1320
tggaattttt cttggaagcc ccatcagtcc ttctctctat atttatttat aatgccagca
                                                                    1380
agceteaagt teeggaatae geacetagge aagaaaggat eegagateta agtggeaate
tttgggagcg ttccagtggg gatggagaag aactagaaag acttaccaaa cccaagagtg
                                                                    1440
atgagtcaga tgaagatact ttctaactgg tacccacata gtttgcagct ctcttgaacc
                                                                    1500
ttattttcac attttcagtg tttgtaatat ttatcttttc actttgataa accagaaatg
                                                                    1560
tttctaaatc ctaatattct ttgcatatat ctagctactc cctaaatggt tccatccaag
                                                                    1620
                                                                    1680
gcttagagta cccaaaggct aagaaattct aaagaactga tacaggagta acaatatgaa
                                                                    1740
gaattcatta atatctcagt acttgataaa tcagaaagtt atatgtgcag attattttcc
ttggccttca agcttccaaa aaacttgtaa taatcatgtt agctatagct tgtatataca
                                                                    1800
                                                                    1860
catagagate aatttgccaa atattcacaa teatgtagtt etagtttaca tgccaaagte
ttcccttttt aacattataa aagctaggtt gtctcttgaa ttttgaggcc ctagagatag
                                                                    1920
                                                                    1980
tcattttgca agtaaagagc aacgggaccc tttctaaaaa cgttggttga aggacctaaa
                                                                    2040
tacctggcca taccatagat ttgggatgat gtagtctgtg ctaaatattt tgctgaagaa
```

gcagtttctc agacacaaca tctcagaatt ttaattttta gaaattcatg ggaaattgga

```
tttttgtaat aatottttga tgttttaaac attggttocc tagtoaccat agttaccact
                                                                     2160
                                                                     2220
tgtattttaa gtcatttaaa caagccacgg tggggctttt ttctcctcag tttgaggaga
aaaatcttga tgtcattact cctgaattat tacattttgg agaataagag ggcattttat
                                                                     2280
tttattagtt actaattcaa gctgtgacta ttgtatatct ttccaagagt tgaaatgctg
                                                                     2340
gcttcagaat cataccagat tgtcagtgaa gctgatgcct aggaactttt aaagggatcc
                                                                     2400
tttcaaaagg atcacttagc aaacacatgt tgacttttaa ctgatgtatg aatattaata
                                                                     2460
                                                                     2520
ctctaaaaat agaaagacca gtaatatata agtcacttta cagtgctact tcacacttaa
                                                                     2580
aagtgcatgg tatttttcat ggtattttgc atgcagccag ttaactctcg tagatagaga
agtcaggtga tagatgatat taaaaattag caaacaaaag tgacttgctc agggtcatgc
                                                                     2640
                                                                     2700
agctgggtga tgatagaaga gtgggcttta actggcaggc ctgtatgttt acagactacc
atactgtaaa tatgagcttt atggtgtcat tctcagaaac ttatacattt ctgctctcct
                                                                     2760
                                                                     2820
ttctcctaag tttcatgcag atgaatataa ggtaatatac tattatataa ttcatttgtg
atatccacaa taatatgact ggcaagaatt ggtggaaatt tgtaattaaa ataattatta
                                                                     2880
                                                                     2911
aacctaaaaa aaaaaaaaa aaaaactcga g
<210> 180
<211> 519
<212> DNA
<213> Homo sapiens
<400> 180
ggcacgagcc ccaggccagc cagggccagg cctactttgg ccacccttaa attagaatgt
                                                                       60
ggggtcaggg gtcacagaaa agccatttct ctgacctagt gtttggcgtc cgggaactct
                                                                      120
                                                                      180
gtgcccaacc ttcagaccct ggcagtcctc actgaggcca ttggcccaga gcccgccatc
ccccgaracc cccgggagec gcctgttgcc acgtccacac ctgccacacc ctctgccggg
                                                                      240
ccccagcccc tcccaaccgg gaccgtgctg gtccctgggg gtcctgcccc accttgcctt
                                                                      300
ggggaggcat gggccctcct cctcccaccc tgccggccgt cactcacctc ttgcttctgg
                                                                      360
                                                                      420
tececeagge ctageeettg gaaggagaca ggagtetagg gaggetgaag cecaeteeeg
480
                                                                      519
ttcatggctc taataaaaaa aaaaaaaaa aaaactcga
<210> 181
<211> 968
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (35)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (45)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (135)
<223> n equals a,t,g, or c
<400> 181
toccottggg geoggaaaaa geggggttgg cetgnecatt ggttntccat geogeeegee
                                                                       60
                                                                      120
catgocccag tactagoctg cagtoccaat gtagoccctc cotcytocma gagoccytom
                                                                      180
aaccgccccg stcanttgtg atttcaggag gatttgatga agatgttaaa gcgaaagtgg
                                                                      240
agaacettet egggatttee ageetggaaa aaaeggaeee tgttaggeaa geaeeetgea
```

```
300
geeeteeetg teecettett eeceteeeet teyeeegeee gtggagaeag etgttyteag
                                                                       360
cagggetete egeagggagg gggeeggete etteeetgge ageaacatee ttgeeettgt
cacacaagtc agcctccatc tgcgcagctc tgtggatgcg ctgctggagg gcaacaggta
                                                                       420
tgtcactggc tggttcagcc cctaccaccg ccagcggaag ctcatccacc cggtcatggt
                                                                       480
tcagcacatc cagcccgcag cgctcagcct cctggcacag tggagcaccc tcgtgcagga
                                                                       540
                                                                       600
gctggaggct gccctgcagc tggctttcta cccggatgcc gtggaggagt ggctggagga
                                                                       660
aaacgtgcac cccagcctgc agcggctgca arctctgctg caggacctca gcgaggtgtc
                                                                       720
tgccccccg ctgccaccca ccagccctgg cagggacgtt gctcaggacc cctgagggga
                                                                       780
gageteatge cagggggete etgetggagg etggggggge tetgewytky cwwwtggeet
gggcaatacg gcccacgtgg gcgtcgtgcc ctctggccca gcagtgtctt gcccacactc
                                                                       840
                                                                       900
agttcctgag ggccctgggc agcccctggg ggagagacta gaaaacacag aaggaagcag
                                                                       960
cacagggaga cccgctttgt gatctgcatg tgtgacactg attctttgga aataaagagt
                                                                       968
ggaagctg
<210> 182
<211>, 1128
<212> DNA
<213> Homo sapiens
<400> 182
                                                                        60
tgtaaaagtt atcagtaatc ctaattettt teetgggttt teettttgte aettattaat
cagtttttga aaggacgaat gaatttagag atgtactctg gagcagtatc atgttaaacc
                                                                       120
aggggtatat tagaaaaatc atcctcataa tcattctggg aagtttttcc tccccaaaaa
                                                                       180
                                                                       240
aagccatcct gatgggtttt caaaaccaga aaaaagctct taatgaggaa cagaccactg
                                                                       300
gagtacccat gagcatetea ggaaaactga gaccetegag aagcettgat ttegtgcaac
ccccaaggtt tcagagccag cagcccagtg ctgtggttga cagacgtggt tttktggrga
                                                                       360
aagcagccag aggccaggaa ttttcagagt cgtgagtcac grtytcccac ccaagattag
                                                                       420
agcamagatt agccatactg agatttggta aaatcattct gtctaagcaa tggaggtgtg
                                                                       480
tgcamacgtg cagtgcctgt tcacagggga tgcaggcaga tcsygggttt aggatggggr
                                                                       540
                                                                       600
aggecacege acceceytte aytgetetge acctgetece teaegtggae actgtecaca
actgtggctc tcacaggaca gttgcccaag gagctcatat cttattggag atagggggtc
                                                                       660
                                                                       720
gtacaggtga cattcatgag cagtgtgagc cgggtgacat gggggtgtca acccagcatc
                                                                       780
tgtccaggag ctcctcctgc agcggctctg gcaggtggcc tgaggctcct ttttgagaga
                                                                       840
gaactgtttg geetteetgt etecteteet etgatetgtt etttettgga acaccaecea
                                                                       900
agaacgtcac ctcctccatc agattgtgag ctcctggagg gcaggagctg tgtccttcta
                                                                       960
ttcatcttcc tatccccaga accttgcaca gatcctggaa tgtggtaggt gctcagtaaa
                                                                      1020
tgtgtgttga ataaatgaat gaatgaatga acaaatgaat gaatttgctt acttcaaggc
                                                                      1080
aaaagaacca tgaaactgta ttttgagttt ctatgttata gcagtcagca aatcctatta
                                                                      1128
<210> 183
<211> 2276
<212> DNA
 <213> Homo sapiens
<400> 183
                                                                        60
ccgcggcgtc tgacctcatg gcgtagagcc tagcaacagc gcaggctccc agccgagtcc
                                                                       120
gttatggccg ctgccgtccc gaagaggatg agggggccag cacaagcgaa actgctgccc
gggtcggcca tccaagccct tgtggggttg gcgcggccgc tggtcttggc gctcctgctt
                                                                       180
gtgtccgccg ctctatccag tgttgtatca cggactgatt caccgagccc aaccgtactc
                                                                       240
                                                                       300
aactcacata tttctacccc aaatgtgaat gctttaacac atgaaaacca aaccaaacct
                                                                       360
 tctatttccc aaatcagcac caccctccct cccacgacga gtaccaagaa aagtggagga
                                                                        420
 gcatctgtgg teceteatee etegeetaet eetetgtete aagaggaage tgataacaat
                                                                        480
 gaagateeta gtatagagga ggaggatett eteatgetga acagttetee ateeacagee
                                                                        540
 aaagacacto tagacaatgg cgattatgga gaaccagact atgactggac cacgggcccc
                                                                        600
 agggacgacg acgagtctga tgacaccttg gaagaaaaca ggggttacat ggaaattgaa
```



							•
•			•	•			
cadtcadtda	aatcttttaa	gatgccatcc	tcaaatatag	aagaggaaga	cagccatttc		660
ttttttcatc	ttattattt	tactttttac	attactatta	tttacattac	atatcacaac		720
	tttttcttct						730
	accatcgcct						840
	atattttta						900
	atatgatatt						960
	tcttttgcct						1020
tttttatctq	tacttttaga	gctgagttta	atcaggtgtc	caaaatgtga	gttaaacatt		1080
accttatatt	tacactgtta	gtttttattg	ttttagattt	attatgcttc	ttctggaagt		1140
	ctacttttaa						1200
	acattcattc						1260
	tgtaatgtac						1320
	caagaaaact						1380
	ctcaatctga						1440
	actctgcagc						1500 ′
ttttggttgg	aattactata	ttaaatttag	aagcagaaac	tggtaaaatg	ttaaatacat		1560
gtacaattgc	ttttagttag	caattgattg	tagcatgggt	tcctccaagg	tttcaagcaa		1620
	ttaaaattat						1680
tgaataaatc	ttaggggtca	ttatcactta	aataatactg	tacctaggtc	tttcaaatta		1740
aaattatacc	tgaatgaagt	tgtttgtata	cataaaggat	atttgtgtac	aattaccttt		1800
tttcccccac	acttgttttc	ttegtttttg	ttttttatgg	caactggaaa	gtatttacta		1860
tgggattcat	ttatgtctgt	ctttctatca	taaagaattg	atcaatatgt	aaatatgtga		1920
tttgaaccat	ggttgactta	caagtgtcac	tacagctttt	tagaaaacat	agccctaata		1980
tatgttaagc	aggacccggg	tgagccagtg	ggcttgcgct	ttatgtagag	ctggaagaag		.2040
gccgtccatc	ctgtctcttg	ggcggacagt	gtactttcct	aatagggaag	ggaagcacaa		2100
	cctgaaccgt						2160
	ataagatttt						2220
aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	aaaaaaaaa	aaaaaa		2276
•					* =		
-210- 104							
<210> 184 <211> 3374							
<211> 33/4 <212> DNA							
<213> Homo	eaniene						
(213× 110110	Saprens						
<400> 184				•			
	tccaagctac	accactcaaa	ctagaacatt	gggagcggga	gtgcagagcg		60
taatcataac	ggcggcggtg	agaagagcga	ggcggaggag	ggggtgccat	ggccgggcag		120
cagttccagt	acgatgacag	tgggaacacc	ttcttctact	tcctcacctc	cttcgtgggg		180
ctcatcgtga	tcccggcgac	atactacctc	tggccccgag	atcagaatgc	cgagcaaatt		240
cgattaaaga	atatcagaaa	agtatatgga	aggtgtatgt	ggtatcgttt	acggttatta		.300
aaaccccagc	caaatattat	tcctacagta	aagaaaatag	ttctgcttgc	aggatgggca		360
ttgttcttat	tccttgcata	taaagtttcc	aaaacagacc	gagaatacca	agaatacaat		420
ccttatgaag	tattaaattt	ggatcctgga	gccacagtag	cagaaattaa	aaaacaatat		480
cgtttgctgt	cacttaaata	tcatccagat	aaaggaggtg	atgaggttat	gttcatgagg	ţ	540

<400> 184						•
	tccaagctac	gccactcggg	ctggggcgtt	gggagcggga	gtgcagagcg	60
				ggggtgccat		
				tcctcacctc		
				atcagaatgc		
				ggtatcgttt		
				ttctgcttgc		
				gagaatacca		420
		and the second second		cagaaattaa		480
				atgaggttat		540
				ggaaaaattg		600
				ccctgccagc		660
				tggcatttat		720
				atagtggaga		780
				cccgaaatat		
				ctcagtataa		900
				tcagagaaat		960
				gcctgaaggc		1020
				ttgaagaaga		1080
				atgtaatctg		1140
				caactttggc		
				agcaatttaa		1260
				tttctaatca		1320

```
aaaattaaaa ctatccagga tttggtgagt ttaaaagaat cagatcgtca cactctactg
                                                                     1380
cactteettg aagatgaaaa atatgaagag gttatggetg teettgggag tttteeatat
                                                                     1440
gtgaccatgg atataaaatc acaggtgtta gatgatgaag atagcaacaa catcacagta
                                                                     1500
ggatccttag ttacagtgtt ggttaagttg acaaggcaaa caatggctga agtatttgaa.
                                                                     1560
aaggagcagt ccatctgtgc tgcagaggaa cagccagcag aagatgggca gggtgaaact
                                                                     1620
                                                                     1680
aacaagaaca ggacaaaagg aggatggcaa cagaagagta aaggacccaa gaaaactgct
                                                                     1740
aaatcaaaaa aaaagaaacc tttaaaaaaaa aaacctacac ctgtgctatt accacagtca
                                                                     1800
aagcaacaga aacaaaagca ggcaaatgga gtcgttggga atgaagctgc agtaaaggaa
                                                                     1860
gatgaagaag aagtttcaga taagggcagt gattctgaag aagaagaaac caatagagat
tcccaaagtg agaaagatga tggtagtgac agagactctg atagagagca agatgaaaaa
                                                                     1920
caaaacaaag atgatgaagc agagtggcaa gaattacaac aaagcataca gcgaaaagag
                                                                     1980
                                                                     2040
agagetetat tggaaaceaa ateaaaaata acacateetg tgtatageet ttaettteet
gaggaaaaac aagaatggtg gtggctttac attgcagata ggaaggagca gacattaata
                                                                     2100
tocatgocat atcatgtgtg tacgotgaaa gatacagagg aggtagagot gaagtttoot
                                                                     2160
gcaccaggca agcctggaaa ttatcagtat actgtgtttc tgagatcaga ctcctatatg
                                                                     2220
                                                                     2280
ggtttggatc agattaaacc attgaagttg gaagttcatg aggctaagcc tgtgccagaa
aatcacccac agtgggatac agcaatagag ggggatgaag accaggagga cagtgagggc
                                                                     2340
tttgaagata gctttgagga agaagaggag gaagaagaag atgatgacta agcagtactc
                                                                     2400
tgaatggacc acagtgtttg cacatatttg caattttttg ctgttttgga agtgtatcat
                                                                     2460
aaaccagaaa cagtacagaa ctgatgttga gggaggtgta gtttttttac tctagaaatg
                                                                     2520
ggtgcataat ataactaggc agtggcggtg ccttggtaca acctgaaaaa tgttaaggct
                                                                     2580
tattgaaacc tttcaagtag gggatggtac atttatttca tctgcaaatg ataataaatc
                                                                     2640
ctttgttatt ataactgtcc agaagtgtgg gctatgtatt atctgatcag tctatggtcc
                                                                     2700
                                                                     2760
cagtaaaagt aaagatgcag gaaacacagt ctgtaaatga gcgacttttc tttgttcagc
tttagtttta gcaaacacca caaatatgtt ttaagtaaca tcgctcaagt ttaagtaaca
                                                                     2820
                                                                     2880
tcgctcaagt tgataatctc ttgataagct ctgttgttga cattttgcag tgatacaaca
gctccactca tagatttaaa cttttatttt tacttatctt ggtcataagt tggcattctc
                                                                     2940
                                                                     3000
tcacattcca catgatatag agggctacgt tttggaattt tccttttctt aattgcccag
agttatcaga cagattataa aaatggcttt taatggctta aaccatttct aaacctctat
                                                                     3060
cttagcagat caatgcagga tctaattctt ttgataagtt ctagctctaa aagtgatagt
                                                                     3120
gggactgtat gttttctgat actggtggct tatgttatta aacctttttt aaaaaaggtt
                                                                     3180
                                                                     3240
cactctaaaa gctgaactac atccttagtt ttcagtctac ttgactctat caggagcttt
ttaaggaaag taagtataac atgcaaagga agcttttttt gtattcattt tggactcctg
                                                                     3300
3360
                                                                     3374
ccggggggg cccc
<210> 185
<211> 1337
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1337)
<223> n equals a,t,g, or c
<400> 185
cttccggttc tccgggcagc tgccactgct gtagcttctg ccacctgcca cgaccgggcc
                                                                       60
                                                                      120
tetecetgge gtttggteae etetgettea ttetecaceg egeetatggt eeetettgga
                                                                      180
gccagcgtgg cgggcctggc ggctcccggg tggtgagaga gcggtccggg aacgatgaag
gcctcgcagt gctgctgctg tctcagccac ctcttggctt ccgtcctcct cctgctgttg
                                                                      240
ctgcctgaac taagcgggyc cctggmagtc ctgctgcagg cagccgaggc cgcgccaggt \cdot
                                                                      300
                                                                      360
cttgggcctc ctgaccctag accacggaca ttaccgccgc tgccaccggg ccctacccct
                                                                      420
gcccagcagc cgggccgtgg tctggctgaa gctgcggggc cgcggggctc cgagggaggc
aatggcagca accctgtggc cgggcttgag acggacgatc acggagggaa ggccggggaa
                                                                      480
                                                                      540
ggctcggtgg gtggcggcct tgctgtgagc cccaaccctg gcgacaagcc catgacccag
```

cgggccctga ccgtgttgat ggtggtgagc ggcgcggtgc tggtgtactt cgtggtcagg

							••
	acqqtcaqqa	tgagaagaag	aaaccgaaag	actaggagat	atggagtttt	ggacactaac	660
			acctttagaa				720
	tttgatgcca	atcatcctcc	aagataagaa	tatacetttt	gatgaaagaa	ctttatcttt	780
			tctatgttta				. 840
			tattttaaca				900
			atatgtatag				960
							1020
			taatttatct				1020
			cttaccatat				
			gatgtcatat				1140
			aaatttcctt				1200
			.ctttgtgttg				1260
	ttattgtttg	caaaacaata	aatatgattt	taaattctct	taaaaaaaaa	aaaaaaacc	1320
	ccgggggggg	gcccggn			,	•	1337
						•	
	<210> 186						
	<211> 941		•				
	<212> DNA						
	<213> Homo	canienc					
	CZIJ/ HOMO	saprens				,	
	1400- 100			•			•
	<400> 186				ctccccccc	ctaccaactt	60
	ggcacgagcc	tggacgcagc	agccaccgcc	gegeeeeee	ctccacgagg	catacttaca	120
	aggaccccca	gctccgacat	gtcgccctct	ggtegeetgt	gtetteteac	categuigge	180
•	ctgattctcc	ccaccagagg	acagacgttg	aaagatacca	cgtccagttc	ttcagcagac	
	tcaactatca	tggacattca	ggtcccgaca	cgagccccag	atgcagtcta	cacagaactc	240
	cagcccacct	ctccaacccc	aacctggcct	gctgatgaaa	caccacaacc	ccagacccag	300
	acccagcaac	tggaaggaac	ggatgggcct	ctagtgacag	atccagagac	acacaagagc	360
	accaaagcag	ctcatcccac	tgatgacacc	acgacgctct	ctgagagacc	atccccaagc	420
	acagacgtcc	agacagaccc	ccagaccctc	aagccatctg	gttttcatga	ggatgacccc	480
	ttcttctatg	atgaacacac	cctccggaaa	cgggggctgt	tggtcgcagc	tgtgctgttc	540
	atcacaggca	tcatcatcct	caccagtggc	aagtgcaggc	agctgtcccg	gttatgccgg	600
	aatcattgca	ggtgagtcca	tcagaaaçag	gagctgacaa	ccygctgggc	acccgaagac	660
	caagccccct	gccagctcac	cgtgcccagc	ctcctgcatc	ccctcgaaga	gcctggccag	720
	agagggaaga	cacagatgat	gaagctggag	ccagggctgc	cggtccgagt	ctcctacctc	780
	ccccaaccct	acccacccct	gaaggctacc	tagcacctta	ggggctgtcc	ctcaagttat	840
	ctcctctqvt	aagacaaaaa	gtaaagcact	ataatettta	caaaaaaaaa	aaaaaaaaa	900
			aaaaaaaaa				941
	aaaaaaaaaa	aunauauau	,				
		•					
	<210> 187	•				,	
	<211> 678				÷		
	<211> 078	_					
		anniona	-				
	<213> Homo	sapiens		•	•		
	100 107					•	
	<400> 187			L-LL		202020+++	60
	ggcacgaggc	agcttgtgct	ttaaaggagg	tgttcaaagc	atgtctgage	agagactitt	
	gggctc.tgtt	ttaattaata	ctttaaaata	attcatattt	aaaatatcag	atgtttccat	120
	aaagaggagg	atgtttaaat	gcctccagac	tacattcctt	tttattcttg	attttacctg	180
	ggagtccaaa	gttcaattcc	ataaagcaag	cgtttatttg	tcactttcaa	tatacatcga	240
	ttgccatgct	taagatgcaa	tatgggctgc	ggaaataggt	taacccacag	gctcccaggg	300
	cccagtgtag	aaggtgagag	attcgtgtaa	aatgattcaa	ataaaaggaa	gaccctggcc	360
	gggtgccgta	gctcacgcct	gtaatcccag	cactttggga	ggccgaagcg	agtggatgac	420
	gaggttagga	gttggagacc	agcctggcca	acatcgtgaa	accccgtctc	tactaaaaat	480
	acaaaaatta	gccggacata	gtggcaggca	cctgtaatcc	tagctagttg	ggaggctgag	540
	gcaggagaat	cotttoaato	tgggagttgg	aggttqcaqt	gagctgagat	cgcgccacag	600
	cactccacc	tagataacaa	ggtgagactc	tototoaaaa	aaaaaaataa	ataaataaaq	660
	taaaaaaaaa		220202000	- 5		•	678
	cuauuaaaaa	uuaauaaa					

```
<210> 188
<211> 1848
<212> DNA
<213> Homo sapiens
<400> 188
                                                                       60
gaaactggac cggagaaccg gagcgaagcg aagcggaagc ccggaatgag gccggactgg
aaageeggag eggggeeagg egggeeteee caaaageetg eeeetteate eeageggaaa
                                                                      120
                                                                      180
ccgccggccc ggccgagcgc ggcggccgct gcgattgcag tcgcggcggc ggaggaagag
                                                                      240
agacggctcc ggcagcggaa ccgcctgagg ctggaggagg acaaaccggc cgtggagcgg
tgcttggagg agctggtctt cggcgacgtc gagaacgacg aggacgcgtt gctgcggcgt
                                                                      300
ctgcgaggcc cgagggttca agaacatgaa gactcgggtg actcagaagt ggagaatgaa
                                                                      360
gcaaaaggta attttccacc tcaaaagaag ccagtttggg tggatgaaga agatgaagat
                                                                      420
gaggaaatgg ttgacatgat gaacaatcgg tttcggaagg atatgatgaa aaatgctagt
                                                                      480
gaaagtaaac tttcgaaaga caaccttaaa aagagactta aagaagaatt ccaacatgcc
                                                                      540
atgggaggag tacctgcctg ggcagagact actaagcgga aaacatcttc agatgatgaa
                                                                      600
agtgaagagg atgaagatga tttgttgcaa aggactggga atttcatatc cacatcaact
                                                                      660
totottocaa gaggoatott gaagatgaag aactgocago atgogaatgo tgaacgtoot
                                                                      720
actgttgctc ggatctccat ctgtgcagtt ccatcccggt gcacagattg tgatggttgc
                                                                      780
tgggattaga taatgctgta tcactatttc aggttgatgg gaaaacaaat cctaaaattc
                                                                      840
                                                                      900
agagcatcta titggaaagg titccaatct titaaggcitig tittagigct aatggggaag
                                                                      960
aagttttagc cacgagtacc cacagcaagg ttctttatgt ctatgacatg ctggctggaa
                                                                     1020
agttaattcc tgtgcatcaa gtgagaggtt tgaaagagaa gatagtgagg agctttgaag
                                                                     1080
totococaga tgggtcotto ttgctcataa atggcattgc tggatatttg catttgctag
caatgaagac caaagaactg attggaagca tgaaaattaa tggaagggtt gcagcatcca
                                                                     1140
cattetette agatagtaag aaagtataeg cetetteggg ggatggagaa gtttatgttt
                                                                     1200
gggatgtgaa ctcaaggaag tgccttaaca gatttgttga tgaaggcagt ttatatggat
                                                                     1260
taagcattgc cacatctagg aatggacagt atgttgcttg tggttctaat tgtggagtgg
                                                                     1320
taaatatata caatcaagat tettgtetee aagaaacaaa eecaaageea ataaaageta
                                                                     1380
taatgaactt ggttacaggt gttacttctc tgaccttcaa tcctactaca gaaatcttgg
                                                                     1440
caattgcttc agaaadaatg aaagaagcag tcagattggt tcatcttcct tcctgtacag
                                                                     1500
                                                                     1560
tattttcaaa cttcccagtc attaaaaata agaatatttc tcatgttcat accatggatt
                                                                     1620
tttctccgag aagtggatac tttgccttgg ggaatgaaaa gggcaaggcc ctgatgtata
ggttgcacca ttactcagac ttctaaagag actatttgaa gtccagttga gtcacaagag
                                                                     1680
                                                                     1740
aageetgtet tgatatatea teteagaaae ttteetgaat atgtgataat atatggaaaa
tgatttatag atccagctgt gcttaagagc cagtaatgtc ttaataaaca tgtggcagct
                                                                     1800
                                                                     1848
<210> 189
<211> 1292
<212> DNA
<213> Homo sapiens
<400> 189
                                                                        60
gctgccttgc tccacacctg gtcaggggag agaggggaaa gccaagggaa gggacctaac
tgaaaacaaa caagctggga gaagcaggaa tetgegeteg ggtteegeag atgeagaggt
                                                                       120
tgaggtgget gegggaetgg aagteategg geagaggtet caeagearee aaggaaeetg
                                                                       180
                                                                       240
gggcccgctc ctccccctc caggccatga ggattctgca gttaatcctg cttgctctgg
                                                                       300
caacagggct tgtaggggga gagaccagga tcatcaaggg gttcgagtgc aagcctcact
                                                                       360
cccagccctg gcaggcagcc ctgttcgaga agacgcggct actctgtggg gcgacgctca
                                                                       420
togococcag atggotoctg acagoageco actgootcaa gococgotac atagttoaco
                                                                       480
tggggcagca caacctccag aaggaggagg gctgtgagca gacccggaca gccactgagt
ccttcccca ccccggcttc aacaacagcc tccccaacaa agaccaccgc aatgacatca
                                                                       540
tgctggtgaa gatggcatcg ccagtctcca tcacctgggc tgtgcgaccc ctcaccctct
                                                                       600
cctcacgctg tgtcactgct ggcaccagct gyctcatttc cggctggggc agcacgtcca
                                                                       660
geocecagtt aegeotycet caeacettye gatycyceaa cateaceate attyayeace
                                                                       720
```

<221> SITE

```
780
agaagtgtga gaacgcctac cccggcaaca tcacagacac catggtgtgt gccagcgtgc
aggaaggggg caaggactcc tgccagggtg actccggggg ccctctggtc tgtaaccagt
                                                                      840
                                                                      900
ctcttcaagg cattatctcc tggggccagg atccgtgtgc gatcacccga aagcctggtg
                                                                      960
tctacacqaa aqtctqcaaa tatgtggact ggatccagga gacgatgaag aacaattaga
ctggacccac ccaccacags ccatcaccct ccatttccac ttggtgtttg gttcctgttc
                                                                     1020
actotyttaa taagaaacco taagocaaga coototacga acattottig ggootootgg
                                                                     1080
                                                                     1140
actacaggag atgctgtcac ttaataatca acctggggtt cgaaatcagt gagacctgga
ttcaaattct gccttgaaat attgtgactc tgggaatgac aacacctggt ttgttctctg
                                                                     1200
ttgtatcccc agccccaaag acagctcctg gccatatatc aaggtttcaa taaatatttg
                                                                     1260
                                                                     1292
ctaaatgaaa aaraaaaaaa aaaaaaactc ga
<210> 190
<211> 906
<212> DNA
<213> Homo sapiens
<2~20>
<221> SITE
<222> (144)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (145)
<223> n equals a,t,g, or c
<400> 190
                                                                       60
actocoteae ceaggteeca geoetgggaa ceaectaeeg tgageeettt tgeagatata
gactcatttc atcctcagat ggtccttcaa ggtaggtact ttagtcccat tttagagatg
                                                                      120
agacgattga ggccagaggg gtgnngtaac ttgcctgggg gctcacgagc acaaaaggag
                                                                      180
                                                                      240
ccgaggcagg atctgaccct tgttctctgg cctcactgcc ctcactttgc catgacccga
                                                                      300
agttatgtcc ctacaaagca atgcatggtc caaggytctt tttattgtat ttttattttt
                                                                      360
aagggtcctg ttcaaaactg gtgtgagctc tgaggagtcc tgaaccctgg gtgcagcatc
ctagcatcct gggagtcctt ttctgcccac actgagctgg gctcctcgag gggtggggct
                                                                      420
                                                                      480
gctgtccctg gaagcctggc agcagcactg tatcgggttg gctgaagctg arcgccgtgg
                                                                      540
ggtgcagggc tccmggaatc cccgtttggc tgaaggggtt ccctgtagcc mgggatgttt
                                                                      600
atgaggtete tetgatgeee caggegeagg acatgtgtge gggtggagaa aageaggeee
tttcagtgcc agctccactc aatttctatg tggaccaaga acgataaact taaaaaattt
                                                                      660
                                                                      720
tttttcctaa ggtatcttca gaatatggtg tatttttatg tggaaaagaa aagttatgaa
                                                                      780
ggcagctgtt actttaagag aaaattcatt aaaagtcctc gaggtatgaa gatgacggcg
                                                                      840
tgcttctcaa tcattttggc ataacttgat tgtggctgta atttttttt tttttttgt
                                                                      900
906
actcga
<210> 191
<211> 1941
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (561)
<223> n equals a,t,q, or c
<220>
```

```
<222> (1414)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1422)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1427)
<223> n equals a,t,g, or c
<400> 191
cttcagctga agcccaggga ccccttttcc accctgggcc ccaatgccgt cctttccccg
                                                                      60
cagagactgg tettggaaac cetcageaaa etcageatee aggacaacaa tgtggaeetg
                                                                      120
attotggcca caccccctt cagccgcctg gagaagttgt atagcactat ggtgcgcttc
                                                                      180
ctcagtgacc gaaagaaccc ggtgtgccgg agatggctgt ggtactgctg gccaacctgg
                                                                      240
ctcaggggga cagcctggca gctcgtgcca ttgcagtgca gaagggcagt atcggcaacc
tectgggett ectagaggae ageettgeeg ceacacagtt ceageagage caggeeagee
tectecaeat geagaaecea ecetttgage caaytagtgt ggacatgatg eggegggetg
                                                                      420
cccgcgcgct gcttgccttg gccaaggtgg acgagaacca ctcagagttt actctgtacg
                                                                      480
                                                                      540
aatcacggct gttggacatc tcggtatcac cgttgatgaa ctcaktggtt tcacaagtca
tttgtgatgt actgtttttg nattggccag tcatgacagc cgtgggacac ctccccccc
                                                                      600
cgtgtgtgtg tgcgtgtgtg gagaacttag aaactgactg ttgcccttta tttatgcaaa
                                                                      660
accacctcag aatccagttt accctgtgct gtccagcttc tcccttggga aaaagtctct
                                                                      720
cetgtttete tetecteett ceacetecee tecetecate aceteaegee tttetgttee
                                                                      780
ttgtcctcac cttactcccc tcaggaccct accccaccct ctttgaaaag acaaagctct
                                                                      840
gcctacatag aagacttttt ttattttaac caaagttact gttgtttaca gtgagtttgg
                                                                      900
                                                                      960
ggaaaaaaaa taaaataaaa atggctttcc cagtccttgc atcaacggga tgccacattt
                                                                     1020
cataactgtt tttaatggta aaaaaaaaaa aaaaaaatac aaaaaaaat tctgaaggac
                                                                     1080
aaaaaaggtg actgctgaac tgtgtgtggt ttattgttgt acattcacaa tcttgcagga
                                                                     1140
gccaagaagt togcagttgt gaacagacco tgttcactgg agaggcctgt gcagtagagt
                                                                     1200
gtagaccctt tcatgtactg tactgtacac ctgatactgt aaacatactg taataataat
                                                                     1260
gtctcacatg gaaacagaaa acgctgggtc agcagcaagc tgtagttttt aaaaatgttt
ttagttaaac gttgaggaga aaaaaaaaaa aggettttee eecaaagtat catgtgtgaa
                                                                     1320
cctacaacac cctgacctct ttctctcctc cttgattgta tgaataaccc tgagatcacc
                                                                     1380
                                                                    1440
tottagaact ggttttaacc tttagctgca gcgnctacgt cnawcgntgt gtatatatat
gacgtkgtac attgcacata cocttggato occacagttk ggtoctocto coagetacco
                                                                     1500
ctttatagta tgacgagtta acaagttggt gacctgcaca aagcgagaca cagctattta
                                                                     1560
atctcttgcc cagatatcgc ccctcttggt, gcgatgctgt acaggtctct gtaaaaagtc
                                                                     1620
                                                                  . 1680
ttgttttctt tctaatcgag gtgtgaaaaa gttctaggtt cagttgaagt tctgatgaag
                                                                     1740
aaacacaatt gagattittt cagtgataaa atctgcatat ttgtatttca acaatgtagc
                                                                     1800
                                                                     1860
taaaacttga tgtaaattcc tcctttttt ccttttttgg cttaatgaat atcatttatt
                                                                     1920
cagtatgaaa totttataot atatgttoca ogtgttaaga ataaatgtao attaaatott
                                                                     1941
ggtaagactt taaaaaaaaa a
<210> 192
<211> 2118
<212> DNA
<213> Homo sapiens
```

```
<220>
```

<221> SITE <222> (13)

<223> n equals a,t,g, or c

```
<220>
<221> SITE
<222> (1324)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1643)
<223> n equals a,t,g, or c
<400> 192
                                                                         60
aaataataat aanaataaat aaaaatwaag tgcttaktgt aactcagcgg acagggctcc
                                                                       120
cagctgctct ggcacgtggg acaccytcca ccctgcacac aacaggcatg caaagaggac
tggatatggt ggggtagagt gcttctggtg tgttcacttt aagaaaacat ctgccaagag
                                                                        180
agaagagtgc ccaggaaaga ccaggaaaat acaagtacat ggctgcttca taccatatac
                                                                        240
                                                                        300
cccaattett taaagcagca aaaggcactt tttttttcag gccagagtga atctaaaaca
aacctggctt tgcttacagg gaagctgtcc cagaaggact gagtgatgcc tcttgttccc
                                                                        360
                                                                        420
taaggtctgg agagtctttg caagtttcca acgacatttc caaccaggtg ggagagacca
                                                                        480
gcagttgacg agacaagtca gacccaaaaa acgacgccaa ggtagtgagt gggtgcctat
ttgggagtag gatgatttga ggaaaacagg aagaaaaacc ggtcagaaag tggcactttg
                                                                        540
gaagtggaaa gctgtttgca aatagcaact ctggctaaag cgaaaatgtt aatcaagtag
                                                                        600
aaagtaaaat tcaggatctt agaagctcat ccttctgatg agaactattt ttttttccgt
                                                                        660
                                                                        720
gaaggaacta ttattacttt aaaagtgagg gtaatttaca tatggggtgt atatattcta
                                                                        780
aaaatagtaa taaaagtacc ttttataagc aatgttgtgt ggcttgtaga agaaagcagg
                                                                        840
gaggaaaaaa aggcaggcaa aactagtcta ggtctaggcc ctaaaaatga gcttccttcc
cacttgactg gaaacgccca tgtgatttct aggctgaaaa taggtaggat ttaacgagta
                                                                        900
acctagttcc cttctgtctc tgatttctga tcagctgatg gagctgctag taagaggggc
                                                                        960
cgatcatgct cccagacgag teetttggcc tettgetete cateccaage etgacteett
                                                                       1020
                                                                       1080
cagcagcagc cccctccttc tgtgtccatc tgatgcaggc aagcaggagc agtaagagg
                                                                       1140
catcccatgt tocagttcac cttctatggg gtgactarga ggttcccggt aactagggca
geccargece ageaggttge aaaageaget geaagettea gaaacecaet teetecaaca
                                                                       1200
ccagggaggt ggcagagagc ccatccaaaa gcccactggg agaggcataa gattctgtgc
                                                                       1260
caggccccca ggtcccctct gtgtcaggta ggctctgcta ctggcctctg aagtaaaggc
                                                                       1320
aaanacaaac gggcagggca gggtggcagg aataaaaaac tctggacaga aaccctttta
                                                                       1380
                                                                       1440
ataaaggaaa ttccacccct cccaatcctt ccatggaagg gtgagacctt aatgtgatgt
                                                                       1500
aagaggaagg tottototgg otttoaggga aacagotgca gotgaaactt aggggoocat
                                                                       1560
tccagggcac ttttcaccac agccagtgca gccgctccaa gtgccactgt cagccccatc
actgccaatt tcacaaagcg gttggtcctt ggcttggtca ggacatcttt tgttcgatct
                                                                       1620
tcaggccgca gaagtccccg aanaccgctg ccgcagcacc atatcaggcc tctgctgggc
                                                                       1680
tgatgccage teaaagtett tgaaagtaga ggetgeegte eteteagett getgttggge
                                                                       1740
                                                                       1800
ageggeetee egageaagtt eggatggggg aaaetgaaca aaaaggtete etstetgetg
                                                                       1860
atcagtgtct catagggcaa gtcctgaggg atctgggaca acaggtggtg gaccgaggcc
atgtcacagt cacagtccag gacttcctgc tcgcgataca acacaatcac ggctgcaaag
                                                                       1920
taaatcggca tcagtgggtg gcaggccagg aagaagtcat ataaccgcac gacgtgcctg
                                                                       1980
aagtcagaca ggacatgeee aaaccaggtg atgageeage tgagggeaaa gatggteeet
                                                                       2040
acctcagcac tetgeatgaa gteatggage tetggattea eetggteaat gatgggeate
                                                                       2100
                                                                       2118
agatagttta atatatgc
<210> 193
<211> 1538
```

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (112)

```
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (147)
<223> n equals a,t,g, or c
<400> 193
                                                                        60
ccgggttcgg ctctgtgtca gcagccgggc ggcgctcggg cgggacatgg cagcctgtac
                                                                       120
agcccggcgg cctggccgtg ggcagccgct ggtggtcccg gtcgctgact gnggcccggt
                                                                       180
ggccaaggcc gctctgtgcg cggccgnagc tggagccttc tcgccagcgt cgaccacgac
                                                                       240
gacgcggagg cacctctcgt cccgaaaccg accagagggc aaagtgttgg agacagttgg
tgtgtttgag gtgccaaaac agaatggaaa atatgagacc gggcagcttt tccttcatag
                                                                       300
catttttggc taccgaggtg tcgtcctgtt tccctggcag gccagactgt rtgaccggga
                                                                       360
tgtggcttct gcagctccag aaaaagcaga gaaccctgct ggccatggct ccaaggaggt
gaaaggcaaa actcacactt actatcaggt gctgattgat gctcgtgact gcccacatat
atotoagaga totoagacag aagotgtgac ottottggot aaccatgatg acagtogggo
                                                                       600
cottotatgcc atoccaggot tggactatgt cagocatgaa gacatootoc cotacacoto
cactgatcag gttcccatcc aacatgaact ctttgaaaga tttcttctgt atgaccagac
                                                                       660
                                                                       720
aaaagcacct ccttttgtgg ctcgggagac gctaagggcc tggcaagaga agaatcaccc
ctggctggag ctctccgatg ttcatcggga aacaactgag aacatacgtg tcactgtcat
                                                                       780
                                                                       840
ccccttctac atgggcatga gggaagccca gaattcccac gtgtactggt ggcgctactg
tatccgtttg gagaaccttg acagtgatgt ggtacagctc cgggagcggc actggaggat
                                                                       900
atteagtete tetggeacet tggagaeagt gegaggeega ggggtagtgg geagggaace
                                                                       960
agtgttatcc aaggagcagc ctgcgttcca gtatagcagc cacgtctcgc tgcaggcttc
                                                                      1020
                                                                      1080
cagtgggcac atgtggggca cgttccgctt tgaaagacct gatggctccc actttgatgt
                                                                      1140
toggattect cecttetece tggaaageaa taaagatgag aagacaceae cetcaggeet
                                                                      1200
tcactggtag gccagctgag gccccaagtg cccaggcttg gtcaccggga agaacaactc
teateceaca attgetgeag aactettete teeceateat gggeeacagt gggtetetta
                                                                      1260
atttgattgt ggggttcttt ttgtggggag gggtggtata acttttcttc agaagaccca
                                                                      1320
                                                                      1380
tgtgggacac ctccaaggct ggcctcctca taagccctgc ctacaccatg ttccagtaaa
                                                                      1440
cetetecace aaggaactgt gtteagetge cacaggeetg gaggagttte etggeetgte
                                                                      1500
acgtgaggtt tgatcagtaa accagtgcas gyttggccaa aaaaaaaaaa aaaaaaaaa
                                                                      1538
aaaaaaaaaa aaaaaaaaa aaactcga
<210> 194
<211> 1098
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (283)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (301)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (349)
<223> n equals a,t,g, or c
<220>
<221> SITE
```

```
<222> (438)
<223> n equals a,t,g, or c
<400> 194
agaccctgtc tcaaataata ataataataa taatcttatt ttggagaata aagagaccts
                                                                         60
tggatttgag gtgccatttg ggtagaaaga aaagacgttt acaccgagaa atagtctgtg
                                                                       120
ttgccctgaa ggagcagagg gatgcatcgc tggaggtgac ctacagttga agaagactca
                                                                       180
                                                                       240
ttatgacaga cettgteett etteettgtg gaaagtgttt eetetgetge taetgeteat
gagactette eccetecetg teccagggaa ecaaaggget tinetaceae accettett
                                                                       300
                                                                       360
ngcccccgc ctcccatgtc tgctgtgcct ttgtactcag caattcttng tttgctccca
ttatcttcca gccggataca gagtgaatag ttaaccacac ttaggtcaaa taggatctaa
                                                                       420
                                                                       480
atttttgttc ctgctccngt gtaaagaggc cagtgtttgt gtgttgcaag cagccttgga
                                                                       540
atagtaactc ttctcatttg tttgggatct ggccamcaag ttccagaatg atacacggat
cagtgcagaa gttcatcagg ctctcggacc ttagggctgt tggagaaggc ttcagcagca
                                                                       600-
gaactgatgg tkawkgytcg tgttctccat cctcaacttt ctttgcttcg atcatacaca
                                                                       660
agaatacatt tggaagggca aaaaatgaac actgttgttc attgcagccg tgttttgtga
                                                                       720
                                                                       780
cacagatgca cagtetgetg tgaagacett eteteaagtg gsatytggga gteeatgeea
                                                                       840
gatcatggtg cttcatgaga gactgacagc tatcaggggt tgtggcactt agtgaggact
ctcctcccc agtgtgtgct gatgacacat acacacctga caatagcttg agtcttctct
                                                                       900
gttcctttta ctctgtagcc aacatacaca tgatttaaaa ccctttctaa atatctatca
                                                                       960
tggttcatcc ttgtccaaat gcagagtcag agctatttgt acttcattat tatttccaag
                                                                       1020
gcgaatagtt ggctttcttt ttgcaaaaat aattaaagtt tttgtatgtt gcaaaaaaaa
                                                                       1080
                                                                       1098
aaaaaaaaa ctacgtag
<210> 195
<211> 1001
<212> DNA
<213> Homo sapiens
<400> 195
gaatteggea egagataget tgeateteat eccagtaaaa ceaettattt ataacatate
                                                                         60
aacgtattga caaggttgaa gagcaagatt gttctgaggt gagatgcaaa tttcaaaggg
                                                                        120
gtgagcacta attgttccag tgattgttta tttattggct aggacataat tactctctt
                                                                       180
gaggttacac atetgectec aggttectgt gtgettgtge cettgggate aggecaggge
                                                                        240
agactgtgat cactgagatt caaactccca gartaatcag caagagcttt ctagagacca
                                                                        300
                                                                        360
aggccaggcc tgatccctga gggatgcatg agaaggcttg gaatctcatt ctgctatggt
                                                                        420
ggctctctct tgatcttctt ggagtagcaa aaacagcaat gtgggcccaa tggtgtggcc
                                                                        480
taaatgatca caaaggtaaa tgagtaaagg gctcagcaga tgagtaagga gccttgtcct
                                                                        540
gagaaattag cactgggctc tgcattcaga aacatgtgat aagcattgcc cattgcacat
                                                                        600
tgcctttatt gtgtaaggac atgaaattcc agttttgcat agctagtgat gaatacctga
agggaattgc agacatattt tattttattt ttaattgaca gatggaattg tatatattta
                                                                        660
                                                                        720
tcatgtacat aatcatgctt taaaatatgt acattatgga atggctaaat caaactaacc
                                                                        780
taggcattat ctcatataat tgtcattttt gtggcgagaa gactaaaaat ctaccctttc
agcattttta aagaatacaa tgtgttttat taacaacagt caccatttgg tacactagat
                                                                        840
ctcttgaact tcttcctctt atctaactga gatcttgtaa cctttgataa cagctcccaa
                                                                       900
geoetteece aaccaetget ceaecegtgg taaccaecat tetattetea actteetggt .
                                                                        960
                                                                       1001
aatcaccatt ctagacacag ggaagactct ctaccctctg a
<210> 196
<211> 1458
<212> DNA
<213> Homo sapiens
<400> 196
ggcacgagat aaactgaaat aggtcatgca aatataaaat attattttta aattatttgt
                                                                         60
cataagaaac gatggtggcc atattttgct ttaataatgg aaaaaatgtg gttagcattc
                                                                        120
```

```
tgtggaaggt ggtcatcaga tagtagacat titctaggat ttattictac ctgcatatgt
ggaaatgtgt actactttag atttatttaa tggcagctaa ctcagaggca tcaaaatgtg
                                                                        240
ctaatggtgt aatatggcct ttgtcttgct gttctgtttt gtaggccttc aatcaagcag
                                                                        300
                                                                        360
ggcagggccg tacagtgaac ttgtcctttg ccagacgcca gcgtctgccc ctgaccccgt.
ctccactctc tgtgtcctgg aggaggagcc ccttgatgcc taccctgatt caccttctgc
                                                                        420
gtgccttgta ctgaactggg aagagccgtg caataacgga tctgaaatcc ttgcttacac
                                                                        480
                                                                        540
cattgatcta ggagacacta gcattaccgt gggcaacacc accatgcatg ttatgaaaga
                                                                        600
teteetteea gaaaceaeet aceggtgagt gcaagggagt agaaatetge ateageaeat
cagcacttgg ggatctaagt aaacctctcg gggaaaatga ccaagtggat gtcatctccc
                                                                        660
agctgtttet aagageeeag atgteeagag tattgtetea cettgateee teaggeeaga
                                                                        720
                                                                        780
agacctgtga aaaagccaca ctggttcagg gactcactgg acggttttgt gtccactcta
                                                                        840
acctgcaccg tctctacccc agagtggact caaatcctca agtcagtcct ctgaacattg
aagtcagaaa ttataaaagg gctttggcaa tatgttagcc caagaatttg gcttcttcca
                                                                        900
gaaattgtgc cgaccttaac agtggcttaa atgatggtaa aacttttaag atttctaaaa
                                                                        960
                                                                       1020
ggatggcatt ggagatacgt tgacttttat taaacaacct atagttgttt aatgacttct
aaaaaaatat ctggagctca ggggttcaac tgagggaaca catgttgaga atcattgttt
                                                                       1080
actaattaaa tgccaggtaa ccgttgaaat tatcaaaaac atcttccacg taccagaaag
                                                                       1140
                                                                       1200
cactcagagg atagttctgt tatggagaag atgaaatggt ttagtagtgt aggaactatg
                                                                       1260
gaaaggtgag cttagatttg gatagtaaaa cctcaagacc ctatttaaaa agtattttat
                                                                       1320
gaatgcagca taaataattt aattcagtgt taaatgccaa ggctagtata ttgagctgaa
                                                                       1380
tgtgaaaaga aactcacatt gggagaatgc caccttttcc ttataagata gctttgaaga
                                                                       1440
taccatttta gacagatgga aattgaatag ctttagaaaa ggcaaatgtt tgatcttggg
                                                                       1458
gaaaaaaaa aaaaaaaa
<210> 197
<211> 1282
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (675)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1195)
<223> n equals a,t,g, or c
<400> 197
gaaaaaaaa agtatgaccc agtagctagg cacctgtggc cccgccaagt tgacacataa
                                                                         60
                                                                        120
aattaactgt cacagtatca tcttagaagt gaaagaagcc cctttatcct gcagtgcccc
tctaccacca cctactgaca aagaacatgg tgctatctgg catgggagaa atgttcagtt
                                                                        180
tgctatggct tgtatgtgtc ccctcaaatt caagtgttgc caatgtgaca gcatcaagag
                                                                        240
gtggggtett taagagatea etaggeeatg agggattete ttaggaetgg gatgaaggee
                                                                        300
                                                                        360
cataataaaa gaggtttcag ggagcatcct gctagcttgc cttctgtatg tgagaacaca
                                                                        420
gcaagaaagc cctagtcaac aagtgccagc tccttgatct tagacttccc atcctccaga
                                                                        480
actgtgagaa atacatttct gttccttaca aattacccag tctcctgtat tctgttatag
                                                                        540
cagcacaaaa tgaagatacc atacctgaac acctgaacat tcttcacaag gtagtaaatg
                                                                        600
cactgcttta ttctggtctc agtattgtgt gcttaataag gaaatgagaa agggtggatc
agggcatagg atgaacaagt tactgctaga cctctcacaa tgccactaat ggataagatt
                                                                        660
gtattttcat cattnottgt ctcttcggaa gctaacacca tgctataata ggcactaaat
                                                                        720
                                                                        78.0
agatgtctaa aaacacctta agtatttgtc tagaaatctg gtgcattgtc cagaaagaac
                                                                        840
caaaattcma aataatttca aagggcctaa agcactaktt aatcmaaatt cattagtttt
                                                                        900
taatggtact accactotca aatitaaaat gtcatottac gttcctcttc ctcgcattgg
                                                                        960
atttattgct aaaacctggt aaacacttta atccytttca attccattac cactgctctt
                                                                       1020
gtccagaatt actcgcagac taatagtcac ctgacttctc cccctgcatc ccgatttgct
```

```
gtctaattct ggttacaaat aagtaactgc caaactaatc tttctaaaaa gcaagactga
                                                                     1080
                                                                     1140
totogtoact cotttgctca acaatgtaaa agottoccatt gtotoccaaa taaaaccago
tttccactgt gtatacaata catccatgat ctgtatccag catcattttg tattngctca
                                                                     1200
                                                                     1260
ctttatacac cacccccat gccacatcaa attaaattat cctgataaat gcaactgcaa
                                                                     1282
aaaaaaaaa aaaaaaactc ga
<210> 198
<211> 951
<212> DNA
<213> Homo sapiens
<400> 198
                                                                       60
atttcggaac gaggactgaa gtgggagcgg cggcagggta gaagacagaa gggggatcta
                                                                      120
tgtggtaact aaagaatgtt tctgttttgt taattattgt gtgtgtgtgg ttttattgtt
                                                                      180
tgcttaagag aatcaaaaac tgaaaaaaat gagaatacag gaaatggctc ttgtttattt
                                                                      240
ttttgctgtg tttacagctt gttaatgctc tactgtcttt gtttcaagag agatttgttc
                                                                      300
actgcccage tegttttgtg teetgageee tatgeccage ccaecttata aateatgeet
                                                                      360
gtttagatgt ttgattttgt tctgtttgct attgttatct taaaggtgta taactctgac
atgccagaca tcaaattaag ctcaaattaa gctctcgttt aaatgtttaa acacctaatt
                                                                      420
                                                                      480
tatattctaa ttgatcccag ccactgatgc atgtacttta gctacttctg ctaaataagc .
                                                                      540
atattaattt tccacatcag gccatcagat cttgagaacc aacagttatc tagaattccg
tgtctactaa tgtttcacct gcatgcagcc ttcattaatt ttgtagcaaa atataaagtg
                                                                      600
                                                                      660
atcattatgt agtttctgga ttaaaaaaat ttgtgtgtga agttgctttg taaagtgcat
                                                                      720
gtggaattaa tgggacagtg tgccctttgt gttagatgtt agagcaaaag aaagggctta
                                                                      780
tagtgttagt attggagcac tttgaagata gatattttca gaaaagatgt aggatttaaa
                                                                      840
agttaaattt taaattttag aaaaagatat gatggcaatt ggaaatagtc acaatgaagt
                                                                      900
tetteateea gtaggtgttt aacagtgtta ttttgecact ggtaatgtgt aaactgtgag
                                                                      951
<210> 199
<211> 1740
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1310)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1736)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1737)
<223> n equals a,t,g, or c
<400> 199
ttattataat aatgatgatg attccaagga aaaaacctac agcgaatgtt ccatttctac
                                                                       60
cccgcacgca gacactctcc ctaacactga taacctgagc ccccagcact ggacggaaga
                                                                      120
atgctggcgt ctccgtgtgt actggttcag ggttctggcc ccagccttgt caggaccccc
                                                                      180
                                                                      240
tggtgtccag agccccacc cctcccgcaa caagcagctg atgccccagt gattctctat
                                                                      300
acatttttca cctcggccaa tatgtccagg aaaactgctt acttctcttt tcttgcctgg
                                                                      360
agcetteatt gtteaccett aegttgeaat ataggaatta atgetacaaa ataaaagtaa
```



	agcttacctg	aaaagtgcat	agtttggggc	aatggtatct	acatctccca	ctgtgggaaa	420
	accagcaaag	catcaaaact	ctcaattctc	ctgttaccra	atgcagatct	gaattataag	480
	atgittatgt	ttgaccattg	tttcaacaat	gggattttgt	tacgaattat	ccctttaact	540
			ttacattatt				600
	aatttgatgt	acagcatgtg	atttttgaag	tttacatgta	aagtcacagt	ataggtgaaa	660
	taacgtttgt	catattttga	gacgtatcct	gcagccatgt	ttttacgtga	gtgttttagt	720
	caaagtacat	ggtagacagt	ctttcacaat	aaaaggaaaa	ggatttttt	tcctccaaat	780
	gtacatttat	caacctaatg	attgatttt	ttaaaaagag	atttcgcccc	agtctggttt	840
	atgaaagttc	attgccctaa	actgtgctga	ttgtttttaa	tcaagttata	aatttccaac	• 900
	ctagatcatg	tatctaccaa	ctctcctgca	ttttccaaaa	ggcattgagc	ttaaatatta	960
						tttgaaactc _.	1020
	cttgtttaaa	acatgatatg	atttttgtgg	gcagtttcag	aaaagaaaac	aaacaaacaa	1080
	aaatcgaccc	tttaattatt	acttgcaact	caacagatct	ccctgccgta	ctgccttttc	1140
	caggaacttt	acttcagggc	tgtccagatt	gcagttgtgc	cccgtgtatg	tggatctagt	1200
	tcacagagtc	tttggaagcc	agcagtcgtg	ccctccgtat	actgtccact	cattttatgt	1260
	agatttggta	tcctcagcag	ccagtgttaa	caccactgtc	acgtagttan	cagattcatc	1320
	ttttatgtat	ttaaagtaat	ccatactatg	atttggtttt	tecetgeace	attaattctg	1380
	gcatcagatc	agtttttgtg	ttgtgaagtt	ctactgtggt	ttgacccaag	accacaacca	1440
	tgagaccctg	aagtaaagat	aaggtacaca	tacattattt	gagtaactgt	ttccttgggg	1500
•	gccaatctgt	gtatgctttt	agaagtttac	agaatgcttt	tatttttgtc	tataacaaac	1560
	agtotgtoat	ttatttctgt	tgataaacca	tttggacaga	gtgaggacgt	ttgccctgtt	1620
	atctcctagt	gctaacaata	cactccagtc	atgagccggg	ctttacaaat	aaagcacttt	1680
	tgatgactca	maaaaaaaaa	aaaaaaaamc	Acadadadaa	gccggtaacc	catttnnccc	1740
	5 5			*		•	
					•		
	<210> 200						•
	<211> 1707	-					
	<212> DNA						
	<213> Homo	sapiens			•		
					· -		
	<400> 200						60
	gcttatagaa	gggagaggag	cgaacatggc	agegegetegg	cggttttggt	grarectorar	120
	gaccatggtg	gtggcgctgc	tcatcgtttg	cgacgttccc	teagectetg	cccaaayaaa	180
	gaaggagatg	gtgttatctg	aaaaggttag	teagetgatg	gaatggacta	acaaaayacc	240
	tgtaataaga	atgaatggag	acaagttccg	tegeettgtg	aaagccccac	cyayaaacca	300
	ctccgttatc	gtcatgttca	ctgctctcca	actgcataga	cagigiging	citycaagca	360
	agctgatgaa	gaattccaga	tcctggcaaa	ctcctggcga	tactccagtg	cattcattaa	420
	caggatattt	tttgccatgg	tggattttga	tgaaggetet	gatgtattt	agatyctada	480
	catgaattca	gctccaactt	tcatcaactt	tcctgcaaaa	gggaaaccca	aacggggtga	540
	tacatatgag	ttacaggtgc	ggggttttc	agctgagcag	attgcccggt	ggategeega	600
	cagaactgat	gtcaatatta	gagtgattag	acccccaaat	tatgetggte	tataaaattt	660
	gggattgctt	ttggctgtta	ttggtggact	tgtgtatett	cyaayaytaa	tatggaatet	720
	ctctttaata	aaactggatg	ggcttttgca	getetgeget	ataagaatco	caegacacce	780
	ggtcaaatgt	ggaaccatat	aagaggacca	ccatatgece	tagatanaa	acacacggga	840
	catgtgaatt	atatccatgg	aagcagtcaa	gcccagtttg	tagetgaaac	tratacetet	900
	cttctgttta	atggtggagt	taccttagga	atggtgcttt	catgigaage	tottatetata	
	gacatggata	ttggaaagcg	aaagataatg	tgtgtggttg	glatiggact	tgttgtatta	1020
	ttcttcagtt	ggatgetete	tatttttaga	tctaaatatc	acggetacee	atacagette	1080
	ctgatgagtt	aaaaaggtcc	cagagatata	cagacactgg	agtactggaa	accyadadac	1140
	gaaaatcgtg	tgtgtttgaa	aagaagaatg	caacttgtat	accongrace	attaacaac	1200
	ttcaagtgat	ttaaatagtt	aatcatttaa	ccaaagaaga	egegeagege	cttaacaagc	1260
	aatcctctgt	caaaatctga	ggtatttgaa	aataattatc	CECEEAACCE	tectecca	1320
	gtgaacttta	tggaacattt	aatttagtac	aattaagtat	attataaaaa	ctycaaaact	1320
	actactttgt	tttagttaga	acaaagctca	aaactacttt	agttaacttg	gccacctgat	1440
	tttatattgc	cttatccaaa	gatggggaaa	gtaagtcctg	accaggigit	cccacatatg	
		ataactacat	+ acces at to a	trottagett	CEECAECEEE	araragarar.	1500
	cctgttacag	acaaccacac	Laggaattta	ccccagoo		505055050	1560
	gtatacttta.	cgcatctttc	cttttgagta	gagaaattat	gtgtgtcatg	tggtcttctg	1560 1530
	gtatacttta.	cgcatctttc	cttttgagta agagcacacg	gagaaattat	gtgtgtcatg	tggtcttctg	1560 1620

	atatttccta atcacgytac		gtgctgtcta	tgattgtttt	tgttttgttg	1680 1707
		*	•			
<210> 201		ů.				
<211> 779						
<212> DNA						
<213> Homo	saniens	•		•		
\Z_1_3> 1101110	Suprems					
<400> 201						
	tgtttccagg	taatgacttg	gcactccaga	gaaagtttca	trctgttgcg	60
	ccaagccaag					120
	cacagatgcc					180
	tcttggtcat					240
	tctcccttcc					300
	aactcaaagt					360
	cataatcact					420
	gtttgattgt					480
taggtgtcat	aaattttaag	aaacctgctt	ttaagtacta	tttataggtt	tttctgttat	540
acttgcaacc	tagttttaaa	atacatgagg	attttatgaa	agctttatac	agacatttat	600
aggaaactca						660
gatgcttttt	gtctggatag	agccttatag	tttaaaatat	cttcatatat	tgccatttga	720
tcaaataaat	ttcttactta	gaaaaaaaaa	aaaaaaaaaa	aaaaaaaaa	aaaactcga	779
	•					
<210> 202						
<211> 1617		·		•		
<212> DNA						
<213> Homo	sapiens					
-400× 202						
<400> 202	taratatat	aataastaas	tototttoto	teeteetet		60
ggcacagctt	tetgtetett	cctcgctccc	tetettete	tcctccctct	gccttcccag	60 120
ggcacagctt tgcataaagt	ctctgtcgct	cccggaactt	gttggcaatg	cctattttt	ggctttcccc	120
ggcacagett tgcataaagt cgcgttetet	ctctgtcgct aaactaacta	cccggaactt tttaaaggtc	gttggcaatg tgcggtcgca	cctattttt aatggtttga	ggctttcccc ctaaacgtag	
ggcacagett tgcataaagt cgcgttetet gatgggaett	ctctgtcgct aaactaacta aagttgaacg	cccggaactt tttaaaggtc gcagatatat	gttggcaatg tgcggtcgca ttcactgatc	cctattttt aatggtttga ctcgcggtgc	ggctttcccc ctaaacgtag aaatagcgta	120 180
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag	ctctgtcgct aaactaacta aagttgaacg gccgtgagag	cccggaactt tttaaaggtc gcagatatat cagcgggcaa	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg	cctattttt aatggtttga ctcgcggtgc gtcttcaagg	ggctttcccc ctaaacgtag aaatagcgta gcttttcgga	120 180 240
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac	ggettteece ctaaacgtag aaatagegta gettttegga gacaagaega	120 180 240 300
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc	ggettteece ctaaacgtag aaatagegta gettttegga gacaagaega acageeetta	120 180 240 300 360
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa	ggettteece ctaaacgtag aaatagegta gettttegga gacaagaega acageeetta tccaaaaace	120 180 240 300 360 420
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg	ggettteece ctaaacgtag aaatagegta gettttegga gacaagaega acageeetta tecaaaaaee geggggteee	120 180 240 300 360 420 480 540
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactggagg aaagatatgt ttcgaactct ctcctggtgt	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacgggcg agctttagcg	ggettteece ctaaacgtag aaatagegta gettteegga gacaagaega acageeetta tecaaaaace geggggteee acetggettt	120 180 240 300 360 420 480 540 600 660
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtggggcag ggaagatcca	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct ctcctggtgt ctcccccgc	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg agctttagcg acactcactc tgattctctg	ggettteece ctaaacgtag aaatagegta getttegga gacaagaega acageeetta tecaaaaace geggggteee acetggettt catgeteeg tgatgetgaa	120 180 240 300 360 420 480 540 600 660 720
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtggggcag ggaagatcca taggattgtg	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct ctcctggtgt ctcccccgc ttagttcttt ggaaatcctg	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctcttt	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg agctttagcg acactcactc tgattctctg ttatttcgtt	ggettteece ctaaacgtag aaatagegta getttegga gacaagaega acageeetta tecaaaaace geggggteee acetggettt eatgeteeg tgatgetgaa tgatteetg	120 180 240 300 360 420 480 540 600 660 720 780
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtggggcag ggaagatcca taggattgtg gccaaatgtt	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct ctcctggtgt ctcccccgc ttagttcttt ggaaatcctg accaatcagt	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctctttt gagcaagcaa	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg agctttagcg acactcactc tgattctctg ttatttcgtt gcacagccaa	ggettteece ctaaacgtag aaatagegta getttegga gacaagaega acageetta tecaaaaace geggggteec acetggettt catgeteeg tgatgetgaa tgatttettg aateggaeet	120 180 240 300 360 420 480 540 600 660 720 780 840
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtggggcag ggaagatcca taggattgtg gccaaatgtt ccgtcttcac	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct ctcctggtgt ctcccccgc ttagttcttt ggaaatcctg accaatcagt acacaaataa	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctcttt gagcaagcaa gaaaacgca	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg agctttagcg acactcactc tgattctctg ttatttcgtt gcacagccaa aacccaccc	ggettteece ctaaacgtag aaatagegta gettttegga gacaagaega acageeetta tecaaaaace geggggteec acetggettt catgeteecg tgatgetgaa tgatttettg aateggaeet atttttaat	120 180 240 300 360 420 480 540 600 660 720 780 840 900
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgtttattt cagctttagtt	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtggggcag ggaagatcca taggattgtg gccaaatgtt ccgtcttcac ttaattttt	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct ctcctggtgt ctcccccgc ttagttcttt ggaaatcctg accaaataa ttgttggcaa	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctctttt gagcaagcaa gaaaacggca aagaatctca	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg agctttagcg acactcactc tgattctctg ttatttcgtt gcacagccaa aacccaccc ggaacggccc	ggettteece ctaaacgtag aaatagegta gettttegga gacaagaega acageectta tecaaaaace gegggteec acetggettt catgeteecg tgatgetgaa tgatteetg aateggaeet atttttaat tgggeaecta	120 180 240 300 360 420 480 540 600 660 720 780 840 900 960
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgtttattt cagctttagt tttatta ctatattaat	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtgggccag ggaagatcca taggattgtg gccaaatgtt ccgtcttcac ttaatttttt catgctagta	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct ctcctggtgt ctcccccgc ttagttcttt ggaaatcctg accaaataa ttgttggcaa acatgaaaaa	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctctttt gagcaagcaa gaaaacggca aagaatctca tgatgggctc	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg accttcactc tgattctctg ttatttcgtt gcacagccaa aacccaccc ggaacggccc ctcctaatag	ggettteece ctaaacgtag aaatagegta gettttegga gacaagaega acageectta tecaaaaace gegggteee acetggettt catgeteeeg tgatgetgaa tgatteetg aateggaeet atttttaat tgggeaeeta gaaggegagg	120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt tttattatta ctatattaat agaggagaag	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtgggccag ggaagatcca taggattgtg gccaaatgtt ccgtcttcac ttaattttt catgctagta gccagggaa	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct ctcccccgc ttagttcttt ggaaatcctg accaaatcagt acacaaataa ttgttggcaa acatgaaaaa tgaattcaag	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctcttt gagcaagcaa gaaaacggca aagaatctca tgatgggctc agagatgtcc	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacgggcg agctttagcg acattactc tgattctctg ttatttcgtt gcacagccaa aacccaccc ggaacggcc ctcctaatag acggacgaaa	ggettteece ctaaacgtag aaatagegta gettttegga gacaagaega acageetta tecaaaaace geggggteec acetggett catgeteecg tgatgetgaa tgatttettg aateggaeet atttttaat tgggeaeeta gaaggegagg cataeggtga	120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt tttattatta ctatattaat agaggagaag ataattcacg	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtgggccag ggaagatcca taggattgtg gccaaatgtt ccgtcttcac ttaattttt catgctagta gccagggaa ctcacgtcgt	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct ctcccccgc ttagttcttt ggaaatcctg accaatcagt acacaaataa ttgttggcaa acatgaaaaa tgaattcaag tctccacag	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctctttt gagcaagcaa gaaaacggca tgatgggctc agagatgtcc agagatgtcc tatcttgttt	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg accttacct tgattctctg ttatttcgtt gcacagccaa aacccaccc ggaacggcc ctcctaatag acggacgaaa tgatcattt	ggettteece ctaaacgtag aaatagegta gettteega gacaagaega acageeetta tecaaaaace geggggteee acetggettt catgeteega tgatgetgaa tgatteetg aateggaeet atttttaat tgggeaeeta gaaggegagg cataeggtga caetgcaet	120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1080 1140
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt tttattatta ctatattaat agaggagaag ataatcacg ttctcccaa	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaaggggcg aggcagctta gttcccggtg gtgggccag ggaagatcca taggattgtg gccaaatgtt ccgtcttcac ttaatttttt catgctagta gccagggaa ctcacgtcgt gaaaagcgaa	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactgggagg aaagatatgt ttcgaactct ctcctcggtgt ctcccccgc ttagttcttt ggaaatcctg accaaatcagt acacaaataa ttgttggcaa acatgaaaaa tgaattcaag tctccacag aggacagact	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctctttt gagcaagcaa gaaaacggca aagaatctca tgatgggctc agggatgttc tatcttgttt gttggctttg	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg agctttagcg acattactct tgattctctgt gcacagccaa aacccacccc ggaacggcc ctctaatag acggacgaaa tgatcattt tgttggagg	ggettteece ctaaacgtag aaatagegta getttegga gacaagaega acageeetta tecaaaaace geggggteee acetggettt catgeteeeg tgatgetgaa tgatteetg aateggaeet atttttaat tgggeaeeta gaaggegagg cataeggtga cactgeaeat ataggaggaga	120 180 240 300 360 420 480 540 600 720 780 840 900 960 1020 1080 1140 1200
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt tttattatta ctatattaat agaggagaag ataatcacg ttctcccaa gagaggaag	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtgggccag ggaagatcca taggattgtg gccaaatgtt ccgtcttcac ttaatttttt catgctagta gccagggaa ctcacgtcgt gaaaagcgaa gggctgagga	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactggagg aaagatatgt ttcgaactct ctcctcggtgt ctcccccgc ttagttctt ggaaatcctg accaatcagt acacaaataa ttgttggcaa acatgaaaaa tgaattcaag tctccacag aggacagact aatctctggg	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgccaccc ggggacgttg attctcttt gagcaagcaa gaaaacggca aagaatctca tgatgggctc agagatgtcc tatcttgttt gttggctttg gtaagagtaa	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg accttcactc tgattctctgt ttatttcgtt gcacagccac ggaacggcc ctctaatag acggacgaaa tgatcattt tgtttggagg aggcttcag aggcttcag	ggetttecce ctaaacgtag aaatagegta getttegga gacaagaega acagecetta tecaaaaace geggggteee acetggettt catgeteeeg tgatgetgaa tgatteetg aateggaeet atttttaat tgggeaeeta gaaggegagg cataeggtga cactgeaeat ataggagga aagacatget	120 180 240 300 360 420 480 540 600 720 780 840 900 960 1020 1080 1140 1200 1260
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt tttattatta ctatattaat agaggagaag ataatcacg ttctcctcaa gagaggaag gctatggtca	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtgggccag ggaagatcca taggattgtg gccaaatgtt ccgtcttcac ttaatttttt catgctagta gccagggaa ctcacgtcgt gaaaagcgaa ctgagggtt	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactggagg aaagatatgt ttcgaactct ctcctcggtgt ctcccccgc ttagttcttt ggaaatcctg accaaatcagt acacaaataa ttgttggcaa acatgaaaaa tgaattcaag tctccacag aggacagact aatctctggg agctttatct	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgccaccc ggggacgttg attctcttt gagcaagcaa gaaaacggca aagaatctca tgatgggctc agagatgtcc tatcttgttt gttggctttg gtaagagtaa gctgttgttg	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg accttcactc tgattctctgt ttatttcgtt gcacagccac ggaacggcc ctcctaatag acggacgaaa tgatcatttc tgtttggagg aggcttcag aggcttcagg acgccac acccc	ggetttecce ctaaacgtag aaatagegta getttegga gacaagaega acagecetta tecaaaaace geggggteee acetggettt catgeteeg tgatgetgaa tgatteetg aateggaeet attttaat tgggeaeeta gaaggegagg cataeggtga cactgeacat ataggagga aagacatget ccaagtteae	120 180 240 300 360 420 480 540 600 720 780 840 900 1020 1080 1140 1200 1320
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt tttattatta ctatattaat agaggagaag ataatcacg ttctcctcaa gagaggaag gctatggtca tgctttatt	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcg aggcagctta gttcccggtg gtgggccag ggaagatcca taggattgtg gccaaatgtt ccgtcttcac ttaattttt catgctagta gccagggaa ctcacgtcgt gaaaagcgaa ctgagggtt ttccctct	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactggagg aaagatatgt ttcgaactct ctcctcggtgt ctcccccgc ttagttctt ggaaatcctg accaaatcagt accaaataa ttgttggcaa acatgaaaaa tgaattcaag tctccacag aggacagact aatctctggg agctttatct cctcttgtt	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctcttt gagcaagcaa gaaaacggca aagaatctca tgatgggctc agagatgtcc tatcttgttt gttggctttg gtaagagtaa gctgttgttg tagctgttac	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg acattcactc tgattctctg ttatttcgtt gcacagccac ggaacggcc ctctaatag acggacgaaa tgatcatttc tgtttggagg agcttccag aggcttccag acgccac cacaccc	ggetttecce ctaaacgtag aaatagegta getttegga gacaagaega acagecetta tccaaaaacc geggggtece acetggettt catgeteceg tgatgetgaa tgattettg aateggacet attttaat tgggeaceta gaaggegagg cataeggtga cactgcacat ataggaggga aagacatget ccaagtteac atacetgaat	120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1140 1200 1260 1320 1380
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt ttattatta ctatattaat agaggagaag ataattcacg ttctcctcaa gagagggaag gctatggtca tgcctttatt atccaacggt	ctctgtcgct aaactaacta aagttgaacg gccgtgagag gagctgggcg cgtgtgcaca ggaagggcg agtcccggtg gtggggcag gtagggcag cagagatca taggattgtg gccaaatgtt ccgtcttcac ttaattttt catgctagta gccaggggaa ctcacgtcgt gaaaagcgaa ctcacgtcgt gaaaagcgaa ctgagggtt ttccctctc atagatcaca	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactggagg aaagatatgt ttcgaactct ctcctcggtgt ctcccccgc ttagttcttt ggaaatcagt accaaatcagt accaaataa ttgttggcaa acatgaaaaa tgaattcaag tcttccacag aggacagact aatctctggg agctttatct cctcttgttt aggggggat	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgc gcgcccaccc ggggacgttg attctctttt gagcaagcaa gaaaaccgca aagaatctca tgatgggctc agagatgtc tatcttgttt gttggctttg gtaagagtaa gctgttgttg tagctgttac gttaaatgtt	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg agctttagcg acactcactc tgattctcgt gcacagccaa aacccaccc ggaacggcc ctcctaatag acggacgaaa tgatcatttc tgtttggagg agctttcagg aggcttccag aacccacct acacacacacacacacacacacacacaca	ggetttecce ctaaacgtag aaatagegta getttegga gacaagaega acageectta tccaaaaace geggggteee acetggettt catgeteeg tgatgetgaa tgattettg aateggaeet attttaat tgggeaeet agaggegagg cataeggtga catgeaeat ataggaggga aagacatget ccaagtteae ataectgaat atagctaaaa	120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1080 1140 1200 1320 1380 1440
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt ttattatta ctatattaat agagggaag ataattcacg ttctcctcaa gagagggaag gctatggtca tgcctttatt atcacacggt aaagatttg	ctctgtcgct aaactaacta aagttgaacg gccgtgagag aagctgggcg cgtgtgcaca ggaagggcta gttcccggtg gtggggcag cgagatcca gtagggcag ctcacgttt ccgtcttcac ttaattttt catgctagta gccaggggaa ctcacgtcgt gaaaagcgaa ctcacgtcgt gaaaagcgaa ctgagggtt ttccctctc atagatcaca acataaaaga	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactggagg aaagatatgt ttcgaactct ctcctcgct ctccccccc ttagttctt ggaaatcagt accaaatcagt accaaataa ttgttggcaa acatgaaaaa tgaattcaag tctccacag aggacagact aatctctggg agctttatct cctcttgttt aggggggat gccttgatt	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgc gcgccaccc ggggacgttg attctctttt gagcaagcga aagaatctca tgatgggct agagatgtc tatcttgttt gttggctttg gtaagagtaa gctgttgttg tagctgttg tagctgttg tagaaaaaaaaaa	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg agctttagcg acactcactc tgattctcgt gcacagccaa aacccaccc ggaacggccc ctcctaatag acggacgaaa tgatcatttc tgtttggagg agctttcagg aggcttccag aacccaggaaa tgatcatttc tgtttggagg aggcttccag atgcatccgt acacacagta aatctaaaat agagagagag	ggetttecce ctaaacgtag aaatagegta getttegga gacaagaega acageectta tccaaaaace geggggteee acetggettt catgeteeg tgatgetgaa tgatteettg aateggaeet attttaat tgggeaeet agaggegagg cataeggtga catgeacat ataggaggga aagacatget ccaagtteae ataectgaat atagctaaaa atgtaatta	120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1140 1200 1260 1320 1380 1440 1500
ggcacagctt tgcataaagt cgcgttctct gatgggactt tctggtgcag ctgtttgctc acatcaagac cggattgcca tcaacatcca tgctcccggc ccttctgagc gaaatcgaga aacactcata tgttttattt cagctttagt tttattatta ctatattaat agaggaag atactcaca gagaggaag gctatggtca tgcctttatt atccaacggt aaagtttat atcaacgtt atcaacgtt aaagttta	ctctgtcgct aaactaacta aagttgaacg gccgtgagag gagctgggcg cgtgtgcaca ggaagggcg agtcccggtg gtggggcag gtagggcag cagagatca taggattgtg gccaaatgtt ccgtcttcac ttaattttt catgctagta gccaggggaa ctcacgtcgt gaaaagcgaa ctcacgtcgt gaaaagcgaa ctgagggtt ttccctctc atagatcaca	cccggaactt tttaaaggtc gcagatatat cagcgggcaa acacatggcc tactggagg aaagatatgt ttcgaactct ctcctcggtgt ctcccccgc tagttctt ggaaatcatg accaaacaat acacaaacaa ttgttggcaa acatgaaaaa ttgattcaag tcttccacag aggacagact aatctctggg agctttatct cctcttgttt aggggggat gcttgatt atcagcaaa	gttggcaatg tgcggtcgca ttcactgatc gtgcgatgcg aactacccgc atttccacag gggataaact gcggcagcgg ctctctcggc gcgcccaccc ggggacgttg attctctttt gagcaagcaa aagaatctca tgatgggctc agagatgtcc tatcttgttt gttggctttg gtaagagtaa gctgttgttg tagctgttac gttaaatgtt taaaaaaaaa aaaagatttg	cctattttt aatggtttga ctcgcggtgc gtcttcaagg agcctgggac ctgcacggtc gagaaaagaa caacggggcg agctttagcg acactcactc tgattctctg ttatttcgtt gcacagccaa aacccaccc ggaacggaca tgatcatttc tgtttggagg aggcttccag aggcttccag atgatcatt tgtttggagg aggcttccag atgatcatt agagagagag ctacaaagta	ggetttecce ctaaacgtag aaatagegta getttegga gacaagaega acageectta tccaaaaace geggggteee acetggettt catgeteeg tgatgetgaa tgattettg aateggaeet attttaat tgggeaeet agaggegagg cataeggtga catgeacat ataggagga aagacatget ccaagtteae atagetaaaa atgtaatta taggagagt	120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1080 1140 1200 1320 1380 1440

<220>
<221> SITE
<222> (50)

<223> n equals a,t,g, or c

```
<210> 203
<211> 1974
<212> DNA
<213> Homo sapiens
<400> 203
gaatteggea egaggetgag ggagetgeag egeageagag tatetgaegg egeeaggttg
                                                                       60
cgtaggtgcg gcacgaggag ttttcccggc agcgaggagg tcctgagcag catggcccgg
                                                                      120
aggagegeet teectgeege egegetetgg etetggagea teeteetgtg eetgetggea
                                                                      180
ctgcgggcgg aggccgggcc gccgcaggag gagagcctgt acctatggat cgatgctcac
                                                                      240
caggcaagag tactcatagg atttgaagaa gatatcctga ttgtttcaga ggggaaaatg
                                                                      300
gcacctttta cacatgattt cagaaaagcg caacagagaa tgccagctat tcctgtcaat
                                                                      360
420
ctgtccttgc gctccctgga taaaggcatc atggcagatc caaccgtcaa tgtccctctq
                                                                      480
ctgggaacag tgcctcacaa ggcatcagtt gttcaagttg gtttcccatg tcttggaaaa
                                                                      540
caggatgggg tggcagcatt tgaagtggat gtgattgtta tgaattctga aggcaacacc
                                                                      600
attotocaaa cacotoaaaa tgotatotto tttaaaaacat gtcaacaago tgagtgooca
                                                                      660
ggcgggtgcc gaaatggagg cttttgtaat gaaagacgca tctgcgagtg tcctgatggg
                                                                      720
ttccacggac ctcactgtga gaaagccctt tgtaccccac gatgtatgaa tggtggactt
                                                                      780
tgtgtgactc ctggtttctg catctgccca cctggattct atggagtgaa ctgtgacaaa
                                                                      840
gcaaactgct caaccacctg ctttaatgga gggacctgtt tctaccctgg aaaatgtatt
                                                                      900
                                                                      960
tsecetecag gaetagaggg agageagtgt gaaateagea aatgeecaea accetgtega
aatggaggta aatgcattgg taaaagcaaa tgtaagtktt ccaaaggtta ccagggagac
                                                                     1020
ctctgttcaa agcctgtctg cgagcctggc tgtggtgcac atggaacctg ccatgaaccc
                                                                     1080
aacaaatgcc aatgtcaaga aggttggcat ggaagacact gcaataaaag gtacgaagcc
agecteatae atgeeetgag geeageagge geeeagetea ggeageacae geetteaett
                                                                     1200
aaaaaggccg aggagcggcg ggatccacct gaatccaatt acatctggtg aactccgáca
                                                                     1260
totgaaacgt tttaagttac accaagttca tagcotttgt taacctttca tgtgttgaat
                                                                     1320
gttcaaataa tgttcattac acttaagaat actggcctga attttattag cttcattata
                                                                     1380
aatcactgag ctgatattta ctcttccttt taagttttct aagtacgtct gtagcatgat
                                                                     1440
                                                                     1500
ggtatagatt ttcttgtttc agtgctttgg gacagatttt atattatgtc aattgatcag
gttaaaattt tcagtgtgta gttggcagat attttcaaaa ttacaatgca tttatggtgt
                                                                     1560
ctgggggcag gggaacatca gaaaggttaa attgggcaaa aatgcgtaag tcacaagaat
                                                                     1620
ttggatggtg cagttaatgt tgaagttaca gcatttcaga ttttattgtc agatatttag
                                                                     1680
atgtttgtta catttttaaa aattgctctt aatttttaaa ctctcaatac aatatttt
                                                                     1740
gaccttacca ttattccaga gattcagtat taaaaaaaaa aaaattacac tgtggtagtg
                                                                     1800
                                                                     1860
gcatttaaac aatataatat attctaaaca caatgaaata gggaatataa tgtatgaact
ttttgcattg gcttgaagca atataatata ttgtaaacaa aacacagctc ttacctaata
                                                                     1920
aacattttat actgtttgta tgtataaaat aaaggtgctg ctttagtttt ctga
                                                                     1974
<210> 204
<211> 1057
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (31)
<223> n equals a,t,g, or c
```

```
<220>
 <221> SITE
 <222> (132)
 <223> n equals a,t,g, or c
 <220>
 <221>-SITE
 <222> (751)
 <223> n equals a,t,g, or c
 <400> 204
 cggccttccg gggcaaccgt tcgtcccaac ncgggaaagg gtcctggagn cgggaactag
                                                                          60
 gagcetegga agtecaaggg eggagegece tttgetaata agecaateag aaegtgagae
                                                                         120
 gctccggtgg gncggtgccg tcgagcgcgg ggtggagtct gggtgacttg gctggcggga
                                                                         180
 tcaagtgcag ctgcttcagg ctgaggtggc agatagtgag cgctggtggc ggagttaaag
· tyaaagcagg agagtaatwa tgaatagcgc agcgggattc tcacacctag accgtcgcga
 gegggttete aagttagggg agagtttega gaageageeg egetgegett eeacaetgtg
 cgctatgact tcaaacctgc ttctattgac acttcttctg aaggatacct tgagkttggc
                                                                         420
                                                                         430
 gaagktgaac agktgaccat wactctgccm aatatagaaa gttgaaggaa gcagtaaaat
 tcagtatcgt aaagaacaac agcaacaaca atgtggaatt casccaggac tcccaatctt
                                                                         540
 gtaaaacatt ctccatctga agataagatg tccccagcat ctccaataga tgatatcgaa
                                                                         600
 agagaactga aggcagaagc tagtctaatg gaccagatga gtagttgtga tagttcatca
                                                                         660
 gattccaaaa gttcatcatc ttcaagtagt gaggatagtt ctagtgactc agaagatgaa
                                                                         720
 gattgcaaat cctctacttc tgatacaggg naattgtgtc tcaggacatc ctaccatgac
                                                                         780
                                                                         840
 acagtacagg attectgata tagatgccag teataataga tttegagaca acagtggeet
 tctgatgaat actttaagaa atgatttgca gctgagtgaa tcaggaagtg acagtgatga
                                                                        . 900
 ctgaagaaat atttagctat aaataaaaat ttatacagca tgtataattt attttgtatt
                                                                         960 .
 aacaataaaa attcctaaga ctgagggaaa tatgtcttaa cttttgatga taaaagaaat
                                                                        1020
 taaatttgat tcagaaaaaa aaaaaaaaa aactcga
                                                                        1057
 <210> 205
 <211> 721
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (264)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (340)
 <223> n equals a,t,g, or c
 <400> 205
                                                                          60
 gaatteggea egagteatee etetecetet tteaeteeet taetettaet etgttttttg
 tgctccagac agacagaccc tacctctttt gcttcttttt tgtttgtttg ttttgagatg
                                                                         120
                                                                         180
 gagtgtcgct cttgttgccc aggctggagt gcagtggcgc aatctcggct caccacaacc
                                                                         240
 totgoctoco gggttcaago aattotootg cotcagooto cogagaagot ggggattaca
                                                                         300
 ggcatgcgcc accacacca gctnaatttt atatttttag tagagatggt gtttctccat
                                                                         360
 gttggtcagg ctggcctcaa actcccaacc tcaggtgatn ccgcctgctt tggcctcccc
 aaagtgctgg gattacaggc gtgagccact gcgcccagcc tctttttgctc ctttatactc
 attaactcac gcctgtaatc cctgttttgg gaggccaaag tgagaaggtt gcttgaggcc
                                                                         480
 aagagtttga gactagcctg ggcaacacag caagatgcca tctttataat aaaaataaaa
                                                                         540
 ataaaaatca attagctggg catggtggaa cgcacctgta gtcccagcca attgagaggc
                                                                         600
 tgaagtggga ggatcattga gcccaggagt tgaggttgca gtgagccatg atcatgtcac
                                                                         660
```

```
720
721
<210> 206
<211> 2465
<212> DNA
<213> Homo sapiens
<400> 206
ccaccattta tccaactgaa gaggagttac aggcagttca gaaaattgtt tctattactg
                                                                    60
                                                                   120
aacgtgcttt aaaactcgtt tcagacagtt tgtctgaaca tgagaagaac aagaacaaag
agggagatga taagaaagag ggaggtaaag acagagcttt gaaaggagtt ttgcgagtgg
                                                                   180
gagtattggc aaaaggatta cttctccgag gagatagaaa tgtcaacctt gttttgctgt
                                                                   240
                                                                   300
gctcagagaa accttcaaag acattattaa gccgtattgc agaaaaccta cccaaacagc
                                                                   360
ttgctgttat aagccctgag aagtatgaca taaaatgtgc tgtatctgaa gcggcaataa
                                                                   420
ttttgaattc atgtgtggaa cccaaaatgc aagtcactat cacactgaca tctccaatta
                                                                   480
ttcqaqaaga gaacatgagg gaaggagatg taacctcggg tatggtgaaa gacccaccgg
acgtcttgga caggcaaaaa tgccttgacg ctctggctgc tctacgccac gctaagtggt
                                                                   540
                                                                   600
tccaggctag agctaatggt ctgcagtcct gtgtgattat catacgcatt cttcgagacc
                                                                   660.
tctgtcagcg agttccaact tggtctgatt ttccaagctg ggctatggag ttactagtag
agaaagcaat cagcagtgct tctagccctc agagccctgg ggatgcactg agaagagttt
                                                                   720
ttgaatgcat ttcttcaggg attattctta aaggtagtcc tggacttctg gatccttgtg
                                                                   780
                                                                   840
aaaaggatcc ctttgatacc ttggcaacaa tgactgacca gcagcgtgaa gacatcacat
                                                                   900
ccagtgcaca gtttgcattg agactccttg cattccgcca gatacacaaa gttctaggca
tggatccatt accgcaaatg agccaacgtt ttaacatcca caacaacagg aaacgaagaa
                                                                   960
gagatagtga tggagttgat ggatttgaag ctgaggggaa aaaagacaaa aaagattatg
                                                                  1020
ataactttta aaaagtgtct gtaaatcttc agtgttaaaa aaacagatgc ccatttgttg
                                                                  1080
gctgtttttc attcataata atgtctacat tgaaaaattt atcaagaatt taaaggattt
                                                                  1140
catggaagaa ccaagttttt ctatgatatt aaaaaatgta cagtgttagg tattatttga
                                                                  1200
                                                                  1260
atggaaagac acccaaaaaa aaaaatgtgc tccgactagg gggaaaacag tagttccgat
tttttcccat tatttttatt ttattttctg gttgccctag cttccccccc tatttttgtg
                                                                  1320
tottttatta actagtgcat tgtottatta aatottcact gtatttaatg caggatgtgt
                                                                  1380
                                                                  1440
1500
ctagttgtaa gttactttgt tatagatggt atcctttacc ccttcttaat attttacagc
agtacgtttt tttgtaacgt gagactgcag agtttgtttt tctatatgtg aaggattaca
                                                                  1560
                                                                  1620
acacaaaaag ttatcctgcc attcgagtgc tcagaactga atgtttctgc agatcttgtg
gcatttgtct ctagtgtgat atataaaggt gtaattaaga cagagttctg ttaatctaat
                                                                  1680
                                                                  1740
caagtttgct gttagttgtg cattagcagt ataaaagcta atatacta tatggtcttg
caacagtttt aaagcctctg cataattgat aataaaaatg catgacattc ttgtttttaa
                                                                  1800
                                                                  1860
tagactttta aaatcataat tttaggttta acacgtagat ctttgtacag ttgacttttt
gacatagcaa ggccaaáaat aactttctga atatttttt cttgtgtata agtggaaagg
                                                                  1920
gcatttttca catataagtg ggctaaccaa tattttcaaa agaacttcat cattgtacaa
                                                                  1980
                                                                  2040
ctaacaacag taactagccc ttaattatgg tgacagttcc ttattggtgt gtgtgagatt
                                                                  2100
actctagcaa ctattacagt ataacacaga tgatcttctc cacacacccc atcacccaga
taatttacag ttctgttaac agtgaggttg ataaagtatt actgataaaa aattatctaa
                                                                  2160
ggaaaaaaac agaaaattat ttggtgtggc catcttacct gcttatgtct cctacacaaa
                                                                  2220
                                                                  2280
gctaaatatt ctagcagtga tgtaatgaaa aattacatct tactgttgat atatgtatgc
totggtacac agatgtoatt ttgttgtoac agcactacag tgaaatacac aaaaaatgaa
                                                                  2340
attcatataa tgacttaaat gtattatatg ttagaattga caacataaac tacttttgct
                                                                  2400
2460
                                                                  2465
ctcga
```

<210> 207

<211> 1480

^{- &}lt;212> DNA

<213> Homo sapiens

```
<400> 207
gaatteggea egageteaag etggeaggtg gtegggggag eggeeggaga ggagetgeeg
                                                                         60
ggagttcgtg ccctgcagga catgacacca gtggcatatc acggccatgg ggtctcagca
                                                                        120
ttccgctgct gctcgccct cctcctgcag gcgaaagcaa gaagatgaca gggacggttt
                                                                        180
gctggctgaa cgagagcagg aagaagccat tgctcagttc ccatatgtgg aattcaccgg
                                                                        240
gagagatage atcacctgtc tcacgtgcca ggggacaggc tacattccaa cagagcaagt
                                                                        300
aaatgagttg gtggctttga tcccacacag tgatcagaga ttgcgccctc agcgaactaa
                                                                        360
gcaatatgtc ctcctgtcca tcctgctttg tctcctggca tctggtttgg tggttttctt
                                                                        420
                                                                        480
cctgtttccg cattcagtcc ttgtggatga tgacggcatc aaagtggtga aagtcacatt
taataagcaa gactcccttg taattctcac catcatggcc accctgaaaa tcaggaactc
                                                                        540
caacttctac acggtggcag tgaccagcct gtccagccag attcagtaca tgaacacagt
                                                                        600
ggtgaatttt accgggaagg ccgagatggg aggaccgttt tcctatgtgt acttcttctg
                                                                        660
cacggtacct gagatectgg tgcacaacat agtgatette atgcgaactt cagtgaagat
                                                                        720
ttcatacatt ggcctcatga cccagagctc cttggagaca catcactatg tggattgtgg
                                                                        780
                                                                        840
aggaaattcc acagctattt aacaactgct attggttctt ccacacagcg cctgtagaag
agagcacage atatgttccc aaggcctgag ttctggacct acccccacgt ggtgtaagca
                                                                        900
gaggaggaat tggttcactt aactcccagc aaacatcctc ctgccactta ggaggaaaca
cctccctatg gtaccattta tgtttctcag aaccagcaga atcagtgcct agcctgtgcc
                                                                       1020
cagcaaatag ttggcactca ataaagattt gcagaattta atacagatct tttcagctgt
                                                                       1080
tcttagggca ttataaatgg aaatcataac gtggttctag gttatcaaac catggagtga
                                                                       1140
tgtggagcta ggattgtgag tgacctgcag gccattatca gtgcctcatc tgtgcagaag
                                                                       1200
tegeageaga gagggaceat ecaaatacet aagagaaaac agacetagte aggatatgaa
                                                                       1260
tttgtttcag ctgttcccaa aggcctggga gctttttgaa aagaaagaaa aaagtgtgtt
                                                                       1320
ggcttttttt ttttttagaa agttagaatt gtttttacca agagtctatg tggggcttga
                                                                       1380
                                                                       1440
ttcaccette atecattgge tggaacatgg attggggatt tgatagaaaa ataaaccetg
                                                                       1480
cttttgattc aaaaaaaaa aaaaaawaaa aaaactcga
<210> 208
<211> 872
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (422)
<223> n equals a,t,q, or c
<220>
<221> SİTE
<222> (847)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (856)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (872)
<223> n equals a,t,g, or c
<400> 208
cagtatttcc ctcagtactg taagcaaaag tggtatgttt ttctttcttt atgtctactc
tgtcctctgt ggccttctgg tgtacccctc tcttcctagc cattcagtct ctctagtcac
                                                                        120
```

ctccctagta gctagtgctc tctaagttit tatttaatta gaacaactcc. atticcattt

								, ,
	caaggtaggt	caatgggggg	aaaagcctca	tgatttaaac	tgaagttaac	aacacagctt		240
	ttaaaatgaa	aactcatact	ccaacttcta	aagtatattt	gagctgattt	gtttccaaaa		300
	caaagatatg	ctgtacctaa	aactgctaaa	acaaaaatat	aaagacaagg	actaggtgat		360
	taaqqqqaqa	gaaaaatcat	ytcttttcca	ggaaaccttt	gctaaaataa	gcaaaacttg.		420
			tgacacaaag					480
	ttatagaaat	agatctataa	aaagatctgt	ccacaggaaa	tatacacctt	ctcctggttc		540
			tcacctaggt					600
	atctattcat	gcacatattc	tgaaaacagg	tacatacaaa	attacaacaa	aggaaaaaaa		660
	ttctattgaa	cacttaaaaa	tagaaacagg	ccaggcacgg	tagctcatac	tgtaatccca		720
	acaatttggg	aggetgagge	tggtggatca	cctgaggtca	ggagtgtgag	accagcttgg		780
			cactactaaa					840
			gactcgggaa			3 2 23 23		872
	acacceneae	aaccenggee	3466633344					
		•						
	<210> 209				•	•		
	<211> 1779							
	<212> DNA					*		
	<213> Homo	sapiens						
		<u>-</u>						
	<400> 209.					•		
	aattgccaag	actgcacaaa	attacagtgc	taatgtatat	ggttgcagtt	cacataaaga		60
•	caaaagcatc	tgttatgaaa	tgagtagtaa	tattgggtgg	ttgatttgtt	cttagcagac		120
	ttggcttcat	wttggtcttg	agataaaatg	gccagcataa	atgctgttta	tattcacgtt	•	180
	ttcctaggtg	tgtgtgtgca	ggccacagca	gcatgccctt	ggtgtagtca	gtgccgaaas		240
	gggtctgttc	cttcttgagc	ctgcctgcag	ggatggtctc	cttttaaagc	aggttgtgtg		300
	cagcattcag	tacactgaag	gtaagctaaa	ccatcaacat	ctctggtgtt	ttaagatgtt		360.
	attttattgg	aacaactgac	aaatgaggga	tgttagcttt	gtggcagaat	tccctgcatg		420
	tgtgataact	gatcttgttt	tattttttgg	cattgcaact	gtggcatagt	tacaatttct		480
	gtttgktcat	cacatttaaa	attggragag	aacgcgcttg	akggatagag	cgccttcagk		540
	gtactgtttc	ttattaactt	tactttttt	aaatcaactt	gctatagact	ttatatacat		600
	tttgttaaat	atagttccta	gtgacataga	aacgatgcgt	agttttcatt	tactaattac		660
	aaatgttgag	gcctaattct	gaaagtcctc	atatttaaag	gctagacaac	gtaatgaaat		720
	ttttaactat	ttgtatgtca.	ttttgaaagt	gtactgcttt	atggtaaaag	tgtttttcat		780
	ttgttcattg	ttttcattat	ttgtgatcat	gttgtctttc	aatacaggca	taaaccttcc		840
	actcttgaac	aaagcagctg	ctttttaaaa	gcggtaattg	cttctttacc	ttttatttct		900
	tttgtaaatg	aagcttttct	ttaagaatgt	gactttaaag	tgttgtctat	tgcataaaac		960
	agttgacact	cacttattgt	aaagtgaaga	ttgttctact	gcatgtgaag	tggaccatgc	1	020
	agatttctgt	atgttctcag	tatgcatcac	tagataataa	agtcttttgt	gaacaaggca	_ 1	080
	tttgtagcca	tttttaaaag	tttttgtctt	cagtgctggt	aagtcaggta	aaccataaat	. 1	140
	agttaaaagc	aaccttttqt	ttttttcctg	aaagttttta	attgaaagta	ttattagtta	1	200
	aagatgtaaa	cctagccaaa	attaccagtt	tattaataat	taggatecta	attatttcaa	1	.260
	aaaatcctac	aaatattgtc	agctttcagt	gtagtgagat	tattcctgta	ggttatgggg	1	.320
	tataattcag	gatttaacta	atgtttctgc	tattttctca	cttttccttt	tgatggtgcg	1	380
	gaaagagaaa	aaggaaaacq	gggcacaggc	cattcgacgc	cttctccaag	ggġtctgatt	1	440
	tgctgagaca	ccagcttcac	cttcttaaca	aggcacctaa	ttacaacaag	ca,tgcacatt	1	500
	ttggtgcatt	caagaatqqa	aaatcagaat	agcagcattg	attcttctgg	tgcagctcag	1	560
	tggaagatga	tgacaaccag	aagacatgag	ctaagggtaa	gggactgttc	tgaagaacct	. 1	620
	ttccatttag	tgatcaagat	atggaagctg	atttctgaaa	atgctcagtg	tgtactctaa	1	680
	ttatttatoo	taccatttga	attgtaactt	gcattttagc	agtgcatgtt	tctaattgac	1	740
			atatgcctct			-	3	779
		J	•					

<210> 210 <211> 2110

<212> DNA

<213> Homo sapiens

				and the second second			
C	aaggtaggt	caatgggggg	aaaagcctca	tgatttaaac	tgaagttaac	aacacagctt	240
t	taaaatgaa	aactcatact	ccaacttcta	aagtatattt	gagctgattt	gtttccaaaa	300
			aactgctaaa				360
						gcaaaacttg	. 420
			tgacacaaag				480
			aaagatctgt				540
			tcacctaggt				600
			tgaaaacagg				660
			tagaaacagg				720
			tggtggatca				780
			cactactaaa				840
			gactcgggaa		•		872

<210> 209 <211> 1779 <212> DNA

<213> Homo sapiens

<400> 209 60 aattgccaag actgcacaaa attacagtgc taatgtatat ggttgcagtt cacataaaga 120 caaaagcatc tgttatgaaa tgagtagtaa tattgggtgg ttgatttgtt cttagcagac ttggcttcat wttggtcttg agataaaatg gccagcataa atgctgttta tattcacgtt 180 ttcctaggtg tgtgtgtgca ggccacagca gcatgccctt ggtgtagtca gtgccgaaas 240 300 gggtctgttc cttcttgagc ctgcctgcag ggatggtctc cttttaaagc aggttgtgtg cagcattcag tacactgaag gtaagctaaa ccatcaacat ctctggtgtt ttaagatgtt 360 attttattgg aacaactgac aaatgaggga tgttagcttt gtggcagaat tccctgcatg 420 tgtgataact gatcttgttt tattttttgg cattgcaact gtggcatagt tacaatttct 480 gtttgktcat cacatttaaa attggragag aacgcgcttg akggatagag cgccttcagk 540 gtactgtttc ttattaactt tactttttt aaatcaactt gctatagact ttatatacat 600 660 tttgttaaat atagttoota gtgacataga aacgatgogt agttttoatt tactaattac aaatgttgag geetaattet gaaagteete atatttaaag getagacaae gtaatgaaat 720 ttttaactat ttgtatgtca ttttgaaagt gtactgcttt atggtaaaag tgtttttcat 780 ttgttcattg ttttcattat ttgtgatcat gttgtctttc aatacaggca taaaccttcc 840 900 actettgaac aaagcagetg etttttaaaa geggtaattg ettetttace ttttatttet 960 tttgtaaatg aagcttttct ttaagaatgt gactttaaag tgttgtctat tgcataaaac 1020 agttgacact cacttattgt aaagtgaaga ttgttctact gcatgtgaag tggaccatgc 1080 agatttctgt atgttctcag tatgcatcac tagataataa agtcttttgt gaacaaggca 1140 trtgtagcca trtttaaaag trtttgtctt cagtgctggt aagtcaggta aaccataaat 1200 agttaaaagc aaccttttgt ttttttcctg aaagttttta attgaaagta ttattagtta aagatgtaaa cctagccaaa attaccagtt tattaataat taggatccta attatttcaa 1260 1320 aaaatcctac aaatattgtc agctttcagt gtagtgagat tattcctgta ggttatgggg 1380 tataattcag gatttaacta atgtttctgc tattttctca cttttccttt tgatggtgcg gaaagagaaa aaggaaaacg gggcacaggc cattcgacgc cttctccaag gggtctgatt 1440 tgctgagaca ccagcttcac cttcttaaca aggcacctaa ttacaacaag catgcacatt 1500 ttggtgcatt caagaatgga aaatcagaat agcagcattg attcttctgg tgcagctcag 1560 tggaagatga tgacaaccag aagacatgag ctaagggtaa gggactgttc tgaagaacct 1620 ttccatttag tgatcaagat atggaagctg atttctgaaa atgctcagtg tgtactctaa 1680 1740 ttatttatgg taccatttga attgtaactt gcattttagc agtgcatgtt tctaattgac 1779 ttactgggaa actgaataaa atatgcctct tattatcaa

<210> 210

<211> 2110

<212> DNA

<213> Homo sapiens

```
<221> SITE
<222> (750)
<223> n equals a,t,g, or c
<400> 210
geggeegetg cageeeggag etgagetage egteegagee gageegteeg ageeggggaa
                                                                       60
                                                                      120
geoggeget getgeegete gtggeggeea gaggagagga gaggeageag catggegagt
                                                                      180
gtcctgtccc gacgccttgg aaagcggtcc ctcctgggag cccgggtgtt gggacccagt
                                                                      240
gcctcggagg ggcctcggct gccccaccct cggagccact gctagaaggg gccgctcccc
                                                                      300
agcettteae cacetetgat gacaceceet gecaggagea geceaaggaa gteettaagg
ctcccagcac ctcgggcctt cagcaggtgg cctttmagcc tgggcagaag gtttatgtgt
                                                                      360
ggtacggggg tcaagagtgc acaggactgg tggwgcagca cagctggatg gagggtcagg
                                                                      420
                                                                      480
tgaccgtctg gctgctggag cagaagctgc aggtctgctg cagggtggag gaggtgtggc
                                                                      540
tggcagaget gcagggeece tgtccccagg caccaccet ggageeegga geccaggeee
                                                                      600
tggcctacag gcccgtctcc aggaacatcg atgtcccaaa gaggaagtcg gacgcatgga
aatggatgag atgatggcgg ccatggtgct gacgtccctg tcctgcagcc ctgttgtaca
                                                                      660
gagtcctccc gggaccgagg ccaacttctc tgcttcccgt gcggcctgcg acccatggaa
                                                                      720
ggagagtggt gacatetegg acageggean cageactace ageggteact ggagtgggag
                                                                      780
cagtggtgtc tccacccct cgcccccca cccccaggcc agccccaagt atttggggga
                                                                      840
                                                                      900
tgcttttggt tctccccaaa ctgatcatgg ctttgagacc gatcctgacc ctttcctgct
ggacgaacca gctccacgaa aaagaaagaa ctctgtgaag gtgatgtaca agtgcctgtg
                                                                      960
gccaaactgt ggcaaagttc tgcgctccat tgtgggcatc aaacgacacg tcaaagccct
                                                                     1020
ccatctgggg gacacagtgg actctgatca gttcaagcgg gaggaggatt tctactacac
                                                                     1080
                                                                     1140
agaggtgcag ctgaaggagg aatctgctgc tgctgctgct gctgctgccg cagacccca
gtecetggga eteceacete egagecaget eccaececea geatgactgg eetgeetetg
                                                                     1200
totgototto caccacotot goacaaagoo cagtootoog goocagaaca tootggooog
                                                                     1260
gagtectece tgeceteagg ggeteteage aagteagete etgggteett etggeacatt
                                                                     1320
caggcagate atgeatacea ggetetgeea teetteeaga teecagtete accaeacate
                                                                     1380
1440
                                                                     1500
agcoggtogo taagottoag ogaagoocca goagooagoa cotgogatga aatotoatot
gatcgtcact tctccacccc gggcccagag tggtgccagg aaagcccgag gggaggctaa
                                                                     1560
gaagtgccgc aagtgtatgg catcgagcac cgggaccagt ggtgcacggc ctgccggtgg
                                                                     1620
                                                                     1680
aagaaggeet geeagegett tetggaetga getgtgetge aggttetaet etgtteetgg
ccctgccggc agccactgac aagaggccag tgtgtcacca gccctcagca gaaaccgaaa
                                                                     1740
gagaaagaac ggaaacacgg agtttgggct ctgttggcta aggtgtaaca cttaaagcaa
                                                                     1800
                                                                     1860
ttttctccca ttgtgcgaac attttatttt ttaaaaaaaaa gaaacaaaaa tatttttccc
cctaaaatag gagagagcca aaactgacca aggctattca gcagtgaacc agtgaccaaa
                                                                     1920
gaattaatta ccctccgttt cccacatccc cactctctag gggattagct tgtgcgtgtc
                                                                     1980
aaaagaagga acagetegtt etgetteetg etgagteggt gaattetttg etttetaaae
                                                                     2040
                                                                     2100
tottocagaa aggactgtga gcaagatgaa tttactttto ttaaaaaaaa aaaaaaaaa
                                                                     2110
aaaaactcga
<210> 211
<211> 938
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (200)
<223> n equals a,t,g, or c
<400> 211
                                                                       60
ggcacaggaa aaaaaagaaa aaagaaaaaaa gaaaaaagtt tttgtaccca cagattagca
                                                                      120
ttttcttgat gtttgaaaaa agtttaagct atgtcctaat ttaaaaatga gcacaaacta
cttaacagat gtctgttccc tcttctctta cttaaattat ctttattttc accatcacct
                                                                      180
                                                                      240
cccaytgccg aacacctgan ctctgtgttt tgtggttgga tcctgggttg ccaagttcct
```

```
atttggtcag tccctggcct gtggggcggt ctcaggaagt ggcatgctct tcamgragga
                                                                         300
togttcatyt coagtataac cawtttgtta ataatagttg ataattccca gottttacca
                                                                         360
gatgarittt gacttatttt teeteetttg acctgtteaa agetaacata teteggteag
                                                                         420
ttcggagagg gtgggggatt tgagaatgtg aggaggagtg gggttagaat gggtttgcct.
                                                                         480
atctgggcaa ggaaagagtt cctagtcgat tgggcacaat gacaaaatga ttccatggat
                                                                         540
agaatcgtcc catgttgctg gaacacctca cgtgttgtga acgccttaaa ttcctgccat
                                                                         600
cecttetetg attecceace tecetgtagt ttecacagga titatetete tgtaceceeg
                                                                         660
                                                                         720
tectecaact ctactetgte agestetect ceatesetta ettecettet aaattecagg
                                                                        780
agatgacete aettigeaaa geaaattgga gecaceaaat igiagetete eteggiggaa
                                                                         840
actgcatctg tgctcatccc tgcaccttct tgcagaaagc cgccccctca ggccaagatg
agtgcctggc ccccatggga gactcagaca ctttgacccc ttgtgacttc agcatctccc
                                                                        900
tctttaaaga ttctctccca acattcagtc gtgctcga
                                                                       - 938
<210> 212
<211> 1551
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (420)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1017)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1408)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1423)
<223> n equals a,t,g, or c
<400> 212
aggctggact aagcatagag aaccaggaga gaaagaaaga tttaagagac tgagtaatat
                                                                         60
ttttttgacag atcatttaag aaactgagta atttttttt tctccaaaag ggcatgggtt
                                                                        120
                                                                        180
ttttttttgt tttgttttt ctctatttgg cactttctag ggattggtct ataaattttt
tgaaagatca taggataaat ttctttgtag caacttccta ttttagtgtt tatgttaggg
garccccarg tgtccctgct gatacgccat tagggccact tctcagcctc tggctacatc
                                                                        300
                                                                        360
ataatgettt tittictate tigecaaagt tieemgaaaa tikakgiitt etaatiittaa
                                                                        420
aaaaattggt tgtggagatg ggatgggacc tctttataag ccctgaaaat aagtgatttn
ttttaagtgc tattctgcta taaacctgat tctcactttt ttctgtagac aacagttttt
                                                                        480
                                                                        540
tataatatat ctattttgtg tggacattat ttccttttaa ccaatactga aattccatag
tgtawacttt ctccacattt tctttgatta atacttyctt aaaatagaca cttggattgg
                                                                        600
caccagetgt caccaataaa getgeeetga acattgteaa teaateetgt taaccaattt
                                                                        660
                                                                        720
gagaattttt ctggaatgct tagttaggga tgaaattgct gggttatagg tatgagtatg
cttgatatac ttttctccag aatgtctaca cctgtgtgta caccacatct ccagagatag
                                                                        780
gggaatetta tgtecetget aactgetete gttatttaat tttetgaeat ttgeegeege
                                                                        840
cgccgcccc tgcccccaac acacacatgg tataaagtgg tagtttcttg ttttaaattg
                                                                        900
aacttttgaa tgatttgaat ttgggcattt ctttgtatcc tgagttattt tggtttcccg
                                                                        960
ttatgtgaat atcetttee tatgetttaa etaettttet aattigteee ttttttnggt
                                                                       1020
tatcaaattc caggccattg tctattccat cytcactttt gggtattgga aacatctttc
                                                                       1080
```

```
cattctgtag cctgtctgtt gaacataaat cttgattttt atgtaatcag atttttctcc
                                                                        1140
 ttacggttat gttcttggaa ttttatttaa gaaatctttt tctatcctga gaccacaaaa
 atgtccccac cattttcttc tgtttcatag ttttgccttg tatgtttaat cctttaaggc
                                                                        1260
 atgigtagit cattttatat ggigtgaaat agitcttatt catttatica acacatatig
                                                                        1320
 gtggagtgcc tgctgatggt agtactcttc agagtacttt gtatatattt gtgaacacat
                                                                        1380
 attettgece tggaagetta tgttgtentt caaggtagat centactegg tttccacetg
                                                                        1440
 ttttcttcag ccctcaggat gaattccaca attttacaca tagcaccagt taaggaatag
                                                                        1500
                                                                        1551
 gctttattgg agaaaaggaa ggcttattag accagcatca gcaaaaaaaa a
 <210> 213
 <211> 997
 <212> DNA
 <213> Homo sapiens
 <400> 213
 agagagteet caacagaace taateatget ggcaccetaa teteataett etageeteea
                                                                          60
                                                                         120
 gaactgagag aacataaact ccagttgttt aagctaccca gtctatggta tttgttatta
                                                                         180
 tagcccaagc taagtcaggt ggaaaggcag aaatattttg agaagartca tttctacaaa
 aacagagttg ttctaaatga aatggccaga tatttcatct tcttcatact agtatttatg
 aaagtttcat taaacaccac ttggccagca cccaggcctg ccaccctcag aacggcaaac
                                                                         300
 aaaagcaaat gatttgagga acaaaagagt ggacacagag cctctcagaa gatggctcca
                                                                         360
 tettetgaga tgatettetg agateateaa ttttetgeae etgatgteet aetecaattg
                                                                         420
 tagtagataa gagcaaagac acttcctgat cctgtggaaa atgctggagc cctgctgatg
                                                                         480
                                                                         540
 gagaggetga caetgggace aacagaagge eggacattta tttgetgeag ceettetgea
 cctgggccct cttcaggcct tgtaccttgc actccccatg ccactgtagc acctggtaag
                                                                         600
                                                                         660
 ctgaagttag gtatttgaag agataatttg cccccaacaa agaattactt aaaagaaaaa
                                                                         720
 ggaaaccact aaattccact tgacaaacca gtttgttcag ttttgacttt tgcaaatttg
                                                                         780
 aaactttctc tttggcacca tatgattctg ttacattagg gctcatcaat gctaagatac
                                                                         840
 acagetaggt ctaccagetg ccaqtggtca agaatgaaag aacctetcag agagagatca
                                                                         900
 gtttctaata acctaacagt tttccttggs tattacmaaa aaaaaaaaaa ttagaataaa
                                                                         960
 atgtcagtgc catgcaggca agtacagata tggaaatgaa agctctgtct acaactgcaa
                                                                         997
 gatttgtttg ttaataaaat tgattgggat cactcga
 <210> 214
 <211> 1496
 <212> DNA
 <213> Homo sapiens
 <220>
<221> SITE
 <222> (450)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (451)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (454)
 <223> n equals a,t,g, or c
<220>
 <221> SITE
 <222> (1435)
```

```
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1492)
<223> n equals a,t,g, or c
<400> 214
gaattcggca cgagtgacca cagatatctt tggctttcag cctcaccaca atgctgtcca
                                                                        60
ctatgttttt tttaatcgat tgacatctca tgaatccaca aatttagccg cttttccatc
                                                                        120
ttttccatct ttgtcatagc ttcatcacgc acgatggagg tcacttcagc actatccgga
                                                                        180
acaqceteae ggacaqater gtgaatttee tttteetttt tettgatgta eeggattgte
gactogttaa cattgagoto atggocaaca goactgtaac toatgootga ttggagotta
tocaacacgo ggamtttctc ogtaaggsam atcamggtot totttogott aggaacactg
ggcararctt aarcactacg cttgggggcc attttagaaa gcaaaaccac ccacaaaaag
                                                                        420
cagaaaaaaa agtgtcagta aacagactgn nganaggact ctttgtttac agcacaggag
                                                                        480
ctgcgactag aaggcggcgc ttctccccag ttcaaacttc agctgggaac cttacctccg
                                                                        540
ccaactccaa attttcaccc tctgcgcatg cccgggaaas aaacccccag aacagtaccg
                                                                        600
                                                                       660
tgatgattga ttttagggtt acaaatacat tttagcaagt aagtgaattt ggcattacga
attaatgatt aatgaaggtc acctgtattt ccatagatat gtaattttat ttaagcaggt
                                                                        720
ttattatatt aaggeggsga ggeagegeeg aagactacaa gtteeageat geaeegegte
                                                                        730
egggegggtt egggeteeca gegagggett eagggaegee ageeeggagg categgeegg
                                                                       840
                                                                       900
aagtgtcgta gggcaaccac gtagtactct ctgcgcatgt gcaaagcgct gtcgggggcc
gccctagctg ccgtcgccgc cgccggggct ctatggtctc tccctagage tttgccgttg
                                                                       960
gaggeggetg etgeggtett gtgagtttga eeagegtega geggeageaa eatggaggaa
                                                                      1020
                                                                      1080
ttcgactccg aagacttctc tacgtcggag gaggacgagg actacgtgcc gtcgggtgag
                                                                      1140
cgattccgcc tgaggcgaga agcgaattgc cccgccccac gcctcacgtg aggcgcgctc
                                                                      1200
tgcccccgcg ggcgtctgcc ctgtggccca ggtggtccag gggggctcct gttctcgagc
                                                                      1260
gtccgctccc tcaggcccct catcctcggc cgctccggcc cgaggcgtgt gcgcgtggcg
                                                                      1320
gttetgtget ecceteegt tgggeagete eggeegeege eccetettge agegeggaa
                                                                      1380
eggeacatgg acaeggeee ttgtegetag ggacgetegt eggteageee egaaegaeaa
cqctqcttca qaaqtcqqqq cqqcaqttcq agccttggaa gttttttca gccctggccc
                                                                      1440
                                                                      1496
gagagagetg etggecaaca acceptecaa gatagagetg teegntetee gnetgg
<210> 215
<211> 1308
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> n equals a,t,g, or c
```

```
<221> SITE
<222> (7)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (9)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1241)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1241)
<223> n equals a,t,g, or c
```

<221> SITE <222> (1247)

<223> n equals a,t,g, or c <400> 215 60 ttggcancng ggagagggaa agaggaggaa atggggtttg aggaccatgg cttacctttc ctgcctttga cccatcacac cccatttcct cctctttccc tctccccgct gccaaaaaaa 120 aaaaaaaagg aaacgtttat catgaatcaa cagggtttca gtccttatca aagagagatg 180 tggaaagagc taaagaaacc accetttgtt cecaacteca etttacecat attttatgea 240 acacaaacac tgtccttttg ggtccctttc ttacagatgg acctcttgag aagaattatc 300 gtattccacg tttttagccc tcaggttacc aagataaata tatgtatata taacctttat 360 tattgctata tettigtgga taatacatte aggtggtget gggtgattta ttataatetg 420 aacctaggta tatootttgg tottocacag toatgttgag gtgggctccc tggtatggta 480 aaaagccagg tataatgtaa cttcacccca gcctttgtac taagctcttg atagtggata 540 600 tactctttta agtttagccc caatataggg taatggaaat ttcctgccct ctgggttccc catttttact attaagaaga ccagtgataa tttaataatg ccaccaacto tggcttagtt 660 aagtgagagt gtgaactgtg tggcaagaga gcctcacacc tcactaggtg cagagagccc 720 aggeettatg ttaaaateat geaettgaaa ageaaacett aatetgeaaa gaeageagea 780 agcattatac ggtcatcttg aatgatccct ttgaaatttt ttttttgttt gtttgtttaa 840 atcaagcctg aggctggtga acagtagcta cacacccata ttgtgtgttc tgtgaatgct 900 960 agetetettg aattiggata tiggitatti titalagagi gtaaaccaag tittatatte 1020 tgcaatgcga acaggtacct atctgtttct aaataaaact gtttacattc attatggggt atgtatgacc ttcattttcc aagaaataga actctagctt agaattatgg atgctctaaa 1080 atgtcagaat gggaactete etegaagtte teecaaacte agagacagea etgeettete 1140 ctaaatgatt attetttet ecctgtttte tggtatttte taggeateet teteaceaea 1200 1260 gccataaccc ttttttactt ccattaggcc gtataactgg ngggacngct ggtcggtata 1308 taatactggt wccaacamag gggttctgga tgtacacmag gttatctt <210> 216 <211> 1705 <212> DNA <213> Homo sapiens <220> <221> SITE <222> (1281) <223> n equals a,t,g, or c <220> <221> SITE <222> (1704) <223> n equals a,t,g, or c <400> 216 60 tggccatgga agcgctagaa ggtttagatt ttgaaacagc aaagaaggat ttccttggat ctggagaccc caaagaaaca aagatgctaa tcaccaaaca ggctgactgg gccagaaata tcaaggagcc caaagccgcc gtggagatgt acatctcagc aggagagcac gtcaaggcca 180 240 togagatotg tggtgaccat ggotgggttg acatgttgat cgacatogco cgcaaactgg acaaggotga gogogagooo otgotgotgt gogotacota cotcaagaag otggacagoo 300 ctggctatgc tgctgagacc tacctgaaga tgggtgacct caagtccctg gtgcagctgc 360 agtggagacc cagcgctggg atgaggcctt tgctttgggt gagaagcatc ctgagtttaa 420 480 ggatgacatc tacatgccgt atgctcagtg gctagcagag aacgatcgct ttgaggaagc 540 ccagaaagcg ttccacaagg ctgggcgaca gagagaagcg gtccaggtgc tggagcagct

cacaaacaat gccgtggcgg agagcaggtt taatgatgct gcctattatt actggatgct

gtccatgcag tgcctcgata tagctcaaga tcctgcccag aaggacacaa tgcttggcaa

gttctaccac ttccagcgtt tggcagagct gtaccatggt taccatgcca tccatcgcca

cacggaagat cegtteagtg tecategtee tgaaactett tteaacatet ecaggiteet

gctgcacage ctgcccaagg acaccecete gggcatetet aaagtgaaaa taetetteae

cttggccaag cagagcaagg ccctcggtgc ctacaggctg gcccggcacg cctatgacaa

600

660

720

780

840

```
gctgcgtggc ctgtacatcc ctgccagatt ccaaaagtcc attgagctgg gtaccctgac
                                                                     960
                                                                    1020
catcogogoc aagocottoo acgacagtga ggagttggtg coottgtgct accgctgctc
                                                                    1080
caccaacac ccgctgctca acaacctggg caacgtctgc atcaactgcc gccagccctt
catcttctcc gcctcttcct acgacgtgct acacctggtt gagttctacc tggaggaagg
                                                                    1140
gatcactgat gaagaagcca tctccctcat cgacctggag gtgctgagac ccaagcggga
                                                                    1200
tgacagacag ctagagattt gcaaacaaca gctcccagat tcttgcggct agtgggagac
                                                                    1260
caagggactc categgagat naggaceegt teacagetaa getragettt gageaaggtg
                                                                    1320
gctcaragtt cgtgccagtg gtggtgagcc ggctggtgct gcgctccatg agccgccggg
                                                                    1380
abgtecteat caagegatgg cececaceee tgaggtggea atactteege teactgetge
                                                                    1440
ctgacgcctc cattaccatg tgcccctcct gcttccagat gttccattct gaggactatg
                                                                    1500
agttgctggt gcttcagcat ggctgctgcc cctactgccg caggtgcaag gatgaccctg
                                                                    1560
gcccatgacc agcatcctgg ggacggcctg caccctctgc ccgccttggg gtctgctggg
                                                                    1620
1680
                                                                    1705
aaaaaaaaa aaaaaaaaa aaana
<210> 217
<211> 999
<212> DNA
<213> Homo sapiens
<400> 217
                                                                      60
agcaaatcac cttaacgatc tggaatgaaa ctgtgaccag tgccgccctg ggtggttctg
gagagactgc cgtcttcttg tttggccata ggtgctgggg ccccggcttc agtcactgtc
                                                                     120
tcagacagka gtcccgataa gcagatcacc agtcctccac tgtccttcct gtcggccttg
                                                                     180
                                                                     240
ctgcatgaga agatagctgc ttcctccctc ttttcctaca ctgtaaatta ttgttttaca
                                                                     300
attgagtgyc ttaataatag tytacaaa'ta ctatgtattt atgcaaaact gttaaagttc
                                                                     360
tcatctgtta tgattggata cttggtcttg tcagtagtgg tcagcattgg gttgtgagct
tgtcctactc catacgtgtt tatcctgcta tgcattttac attgtgtgtt cacatctatt
                                                                     420
                                                                     480
ccaaggagcc ttgctagaaa caacactggc ggttcctgca ggccaggcag gcattggccc
atgctgtgtc ccataggagc caatggaaag aacgtagctt ggtctgctag ccagccgtgg
                                                                     540
ggtggcgcag gccaggcagc ctctgcacca gagtccagca cctgcccatt ccccagtcac
                                                                     600
acaatcatac tottotttca tagagatttt attaccacct agaccaccct agttttcctc
                                                                     660
                                                                     720
totgttagtg tootgagoto tittgcaaca aaatgtaggt acagaccaat cootgtooot
tececaatea ggagetecae accatgagtt gtttggtttt ceagaagetg ceagtgggtt
                                                                     780
cccgtgaatt gcgttaagat atcgatgatk tittttattg titttcttct tgtttttta
                                                                     840
aataatatat ttaaaggcag tatettttgt aetgtgaatt tgeagtagaa gatgeagaat
                                                                     900
                                                                     960
gcactttttt tttacttctg ttggtgtgta ttgtatatag tgtgtgtgct tcttgtgatg
                                                                     999
<210> 218
<211> 941
<212> DNA
<213> Homo sapiens
<400> 218
 ggcacgagta gcatttcatt taatctgcag gtatattctc ccaacagttt attgtcatgt
                                                                       60
 gatgtcctca gccaagattg traggcagag aggagctgtc ccaacctact ataccaccga
                                                                      120
                                                                       180
 ggctggagag atcatatttt tggtattaaa ctggagtctc tccatccttc acattgttga
                                                                      240
 tgtcctctgt agcaaaccgg aaaagtcagt gacagaagat gccgctagcg gtttgagcca
 gagaatgaca gctctggttt ggagaaaagg gccggatggt ggctctagaa agcccatcct
                                                                      300
                                                                      360
 totgototto tttttctcc coottatatt gtgotttcat tcattcattc attcatcaaa
                                                                       420
 catttgttga gcacctatta tgtgtcaagc tctgtgctag cctctggaaa acctgccctc
                                                                      480
 atgtagetea etgtggagta ggagaaacaa tgaetacaet atgataagea egggttgtea
                                                                      540
 gggtctcaca gagcagtggc ccctcatcca gaccgatgag gtcaaagaag gcatccaggc
 gaggatggtg tcagagctaa ctgaagaatg agagggagct gcaccascag gggttggaac
                                                                      600
 tgaaggtggc agtgcctgga gtcttgattc cagcagaggg agagcagtct gtgaaaaggc
                                                                      660
```

```
720
accaagggtg ggagagggca gagcacatgg aggaacttca ggtagttctg gatggcsctg
gggcaaagct agagaggtaa gaagaatcta caaatgttcc tcgagttaca tgaacttcca
                                                                     780
                                                                     840
tcccaataaa cccattggaa acgaaaaatt taagtcagaa gtgcatttaa ggctggtccg
agtagaatga tttttacaac gaattgatca caaccagtta cagatgtctt tgttccttct
                                                                     900
                                                                     941
ccactcccac tgcttcacct gactagcctt taaaaaaaaa a
<210> 219
<211> 575
<212> DNA
<213> Homo sapiens
<400> 219
                                                                      60
taagtggaat cccccggggt tgcagggaat tcggcacgag gcattctgag aagcttaaga
catactttga agacaaccct agggacctcc agctgctgcg gcatgaccta cctttgcacc
                                                                      120
ccgcagtggt gaagccccac ctgggccatg ttcctgacta cctggttcct cctgctctcc
                                                                      180
gtggcctggt regeceteae aagaagegga agaagetgte tteetettgt aggaaggeea
                                                                      240
                                                                      300
agagagcaaa gtcccagaac ccactgcgca gcttcaagca caaaggaaag aaattcagac
                                                                      360
ccacagccaa gccctcctga ggttgttggg cctctctgga gctgagcaca ttgtggagca
caggettaca ecettegtgg acaggegagg etetggtget tactgeacag eetgaacaga
                                                                      420
cagttctggg gccggcagtg ctgggccctt tagctccttg gcacttccaa gctggcatct
                                                                     480
 540
                                                                      575
ctcgagggg ggcccgtacc caattcgccc tataa
<210> 220
<211> 3018
<212> DNA
<213> Homo sapiens
<400> 220
gccagcctta caggttttac gtgaaatgaa agccattgga atagaaccct cgcttgcaac
 atatcaccat attattcgcc tgtttgatca acctggagac cctttaaaga gatcatcctt
                                                                      120
catcatttat gatataatga atgaattaat gggaaagaga ttttctccaa aggacccgga
                                                                      180
 tgatgataag ttttttcagt cagccatgag catatgctca tctctcagag atctagaact
                                                                      240
                                                                      300
 tgcctaccaa gtacatggcc ttttaaaaaac cggagacaac tggaaattca ttggacctga
                                                                      360
 tcaacatcgt aatttctatt attccaagtt cttcgatttg atttgtctaa tggaacaaat
 tgatgttacc ttgaagtggt atgaggacct gatacettca geetaettte eccaetecea
                                                                      420
 aacaatgata catcttctcc aagcattgga tgtggccaat cggctagaag tgattcctaa
                                                                      480
 540
 tectgatget catggeaagg gacaageace caccagaget teaggtggea tttgetgaet
                                                                      600
                                                                      660
 gtgctgctga tatcaaatct gcgtatgaaa gccaacccat cagacagact gctcaggatt
                                                                      720
ggccagccac ctctctcaac tgtatagcta tcctcttttt aagggctggg agaactcagg
                                                                      780
 aagcctggaa aatgttgggg cttttcagga agcataataa gattcctaga agtgagttgc
 tgaatgaget tatggacagt gcaaaagtgt ctaacageee tteecaggee attgaagtag
                                                                      8.40
 tagagetgge aagtgeette agettaeeta titgtgaggg eeteaeeeag agagtaatga
                                                                      900
                                                                      960
 gtgattttgc aatcaaccag gaacaaaagg aagccctaag taatctaact gcattgacca
                                                                     1020
 gtgacagtga tactgacagc agcagtgaca gcgacagtga caccagtgaa ggcaaatgaa
 agtggagatt caggagcagc aatggtetea ceatagetge tggaateaca eetgagaaet
                                                                     1080
                                                                     1140
 gagatatacc aatatttaac attgttacaa agaagaaaag atacagattt ggtgaatttg
                                                                     1200
 ttactgtgag gtacagtcag tacacagctg acttatgtag atttaagctg ctaatatgct
                                                                     1260
 acttaaccat ctattaatgc accattaaag gcttagcatt taagtagcaa cattgcggtt
                                                                     1320
 ttcagacaca tggtgaggtc catggctctt gtcatcagga taagcctgca cacctagagt
                                                                     1380
 gtcggtgagc tgacctcacg atgctgtcct cgtgcgattg ccctctcctg ctgctggact
 totgootttg ttggootgat gtgotgotgt gatgotggto ottoatotta ggtgttcatg
                                                                     1440
                                                                     1500
 cagttctaac acagttgggg ttgggtcaat agtttcccaa tttcaggata tttcgatgtc
                                                                     1560
 agaaataacg catcttagga atgactaaac aagataatgg cagtttaggc tgcacaactg
 gtaaaatgac tgtagataaa tgttgtaatt agtgtacacg tttgtatttt tgttaatata
                                                                     1620
```

```
geogetgeea tagtttteta acttgaacag ceatgaatgt tteatgtete cettttttt
                                                                      1680
ttgtctatag ctgttaccta ttttagtggt tgaaatgaga gctagtgatg acagaaggat
                                                                      1740
gtggaatgtc ttcttgacat cattgtgtat tgctggtaat caagttggta acgactactt
                                                                      1800
ctagcagete traceactat gaettaagrg greetggaag geagtaagrg gaggtttgea
                                                                      1860
gcattcctgc cttcatgagg gcttctacca ctgaccactt tgcacgtacc tggctcccag
                                                                      1920
atttacttag gtaccccacg agtcgtccac ataagçagct tcatctttac cttgccagag
                                                                      1980
 ttgacaatta tgggatactc tagtctactt atacttgtgt tcccatctgt ctgccatcct
                                                                      2040
ctgaaggcca ggacccagtc atacatcctt agaaaccaaa gtatggtttt tgttttctct
                                                                      2100
 2160
                                                                      2220
 tagctagcta cttaagcatc catgggtatt gctccatatc aaagcagatt tgcaggacag
                                                                      2280
aaagagtaaa ttagccttca gtcttggttt acagcttcca aggagagcct tggscacctg
                                                                      2340
adatqttaac toggtocott cotgtotota gttoatcago acctgoagat gootgactot
                                                                      2400
 tgttagcctt actattcaat acagtcctta gattcacggt atgcctcttc ctatccaggc
 acctattctg aatcaccatg ttgctctgca gctagagttg ataggagaaa atccatttgg
                                                                      2460
 gtagatggcc tatgaatttg tagtagactt tcaaaatgag tgatttgtta gcttggtact
                                                                     2520
 tttaagtttg tggtacagat cctccaaacc catactctga gcaattaact gccttgaaca
                                                                      2580
 tagagaaaaa ttaaggcctc acaggatgag tetecattet etgtaaatge ttattttate
                                                                      2640
                                                                      2700
 atagtettta geetetaaet atgagtaaaa tgttetette ggeegggtgt ggtgaeteae
                                                                      2760
 acctgtaacc tcagcacttt gggaggcaga ggtgggagga tcacttaggt ccaggagttc
                                                                      2820
 gagactagcc tgggcaacat agtgagacac cggatctaca aaaaaataaa aagccagact
                                                                      2880
 ggtggtatgt atctgtgtcc cagctaattg ggagggtgag atgggaggat tgtttgagcc
                                                                      2940
 taggagaggg aggttgcagt gagccgtgat cgcaccactg cactccagcc tgggcaacag
                                                                      3000
 agcaagaccc tgtcttggag aaaccagaat tttggaagag caaatggggc tgagtgcagt
                                                                      3018
 ggctcatgcc tgtaatcc
<210> 221
<211> 2031
<212> DNA
<213> Homo sapiens
<400> 221
 aggatatgca tgattottaa ccaggotata tgttaaaaaa aaattggaaa atgcaataca
                                                                       - 60
                                                                       120
 ttttttatta tacaaactac agaatgagta tgcaagtttt atttatcaaa atgtaatgga
                                                                       180
 tttttaaagg ctgagaaatt ttccttatac ctaccttttc agttatttta attataccaa
 attatcaact agaatagctt catccatatg aaatataaaa tgaagagaca cctaggctct
                                                                       240
 atcaggetta ggattetttg aacttattte eaetttaatt teteagtgga agttaagagg
                                                                       300
 ggtgagaaaa caaagaaggg gaaaaactga caactaacaa aaccagcacc acatcgctag
                                                                       360
 gtggtgctta ctaattacct tctcaggatt ttcctcagat tgaaaagctt atgaggattt
                                                                       420
 cttgggagtc ttaataacct gcctgttagt acagagcttt cctgatgata tttactcttg
                                                                       480
 agcacatgtg gttgtaaaac cttaactttc tttctccagg agggtggtga tagaaacaga
                                                                       540
                                                                       600
 tggtagtatt tatgaactga tgttctcgtg aaatgttgag ggtggggaga aaagacttta
                                                                       660
 agggaggaga gccatctatt ttgttcctaa agccacctct cagcagaatc gtcatgtttt
                                                                       720
 totgatgcac egetetgett catgeceaag atgaettgeg aggeaatete aggagetgtg
                                                                       780
 gacttaaccr ttgcaaagca cactgtcttt ctcagcgttc tctgcaagtc agtaggtgtt
                                                                       840
 agtatggttg caaagttcac tgtctcagca aagttgaact gggctacctc tctacagctg
 tttcctcaga gggaaaaatc ttgagaccag atggtggagc tctggagtca gaggaaatgg
                                                                       900
 gtgtcttcag cacaaagctg ctgcttttac ttcagccact tctgacattt ttacataccg
                                                                       960
```

agcctgagat trtgtgatta tctcaaatca aatcactttg atggagataa ataatcaaaa

ctgttttata gtcattgatt tggtgagaac agtaatggaa aatggtgttg aaggacttct

cattitigga getticette cagagiectg getgatiggi gitegetgit cateigagee

cccaaaagca ttattactga tacttgcaca cagtcaaaag cgcagactgg atggatggtc

ttttataagg catttaaggg tacactactg tgtttcactg accatacatt tttcttagcc

cctcaagtaa tatagcacag agttatgaat gacaattccc ctaaccattc ctcttcatat ctgcctcttc cccttaccat cgtaattctc caaactggtc ataaaggcac tctgtgaaga

tattggggac tgacatetta ageteteace tggetgeagt aggaaaggee aaactgaega

caaaaaaaaa attotttata aagatgatat ggtaacatgt atotttgccc tgggtctggg

tgggtccagt cagtctcaga tttacaagca tttaggagcc taggtaaaag ctgctagtat

1020

1080 1140

1200

1260

1320

1380

1440 1500

```
tottttaaaa gttacattta tgacttgcaa tgatagaaaa ctccttccaa ttaaatggca
                                                                        1620
 ttttataata ttatgtgtgt acttcacagt gttaaaaata ccctcatacg ttattgcatt
                                                                        1680
 tgatcttcac agaaagtgca ttttaaccag tactctgggt gcaataaata atatgtagaa
                                                                        1740
 atttaagtcc tccaattcca gcatatccag tgagttttga cagtgtgttt atgtggaatg
                                                                        1800
 tttaaggata tacaattgta ctttatataa attggttctt gttcttctta aatgtgacat
                                                                        1860
 gaaataattg tgctgctaca ttatactgga aattaacagg ggaaaaggga agagctcttg
                                                                        1920
 gctcccttga ggttctgcta gtggtgttag gagtggttac aactgagctt ttagtaacca
                                                                        1980
 tttaaccgta tgtaaacttg gtttctaatt aaaaaaaaat ttcttttcc a
                                                                        2031
<210> 222
<211> 968
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (241)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (954)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (961)
<223> n equals a,t,g, or c
<400> 222
 ggcacgaggg ccgcgggaca tccacggggc gcgagtgaca cgcgggaggg agagcagtgt
 totgotggag cogatgocaa aaaccatgoa tttottatto agattoattg ttttottta
                                                                         120
 tctgtggggc ctttttactg ctcagagaca aaagaaagag gagagcaccg aagaagtgaa
                                                                         180
 aatagaagtt ttgcatcgtc cagaaaactg ctctaagaca agcaagaagg gagacctact
                                                                         240
                                                                         300
naaatgccca ttatgacggc tacctggcta aagacggctc gaaattctac tgcagccgga
 cacaaaatga aggccacccc aaatggtttg ttcttggtgt tgggcaagtc ataaaaggcc
                                                                         360
 tagacattgc tatgacagat atgtgccctg gagaaaagcg aaaagtagtt ataccccctt
                                                                         420
 catttgcata cggaaaggaa ggctatgcag aaggcaagat tccaccggat gctacattga
                                                                         480
                                                                         540
 tttttgagat tgaactttat gctgtgacca aaggaccacg gagcattgag acatttaaac
 aaatagacat ggacaatgac aggcagctct ctaaagccga gataaacctc tacttgcaaa
                                                                         600
                                                                         660
 qqqaatttqa aaaaqatqaq aagccacqtq acaaqtcata tcaqqatqca gttttaqaaq.
 atatttttaa gaagaatgac catgatggtg atggcttcat ttctcccaag gaatacaatg
                                                                         720
 tataccaaca cgatgaacta tagcatattt gtatttctac ttttttttt tagctattta
                                                                         780
 ctgtacttta tgtatwaaac aaagtcmctt ttctccmagt tgkatttgct atttttcccc
                                                                         840
                                                                         900
 tatgagaaga tattttgatc tccccaatac attgattttg gtataataaa tgtgaggctg
 ttttgcaaac ttaaaaaaa atttaaaaaa actggagggg ggcccgtacc caantcgccg
                                                                         960
                                                                         968
 natatgat
<210> 223
<211> 1404
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1351)
```

```
<223> n equals a,t,g, or c
<400> 223
 cgttttccgg ccgtgcgttt gtggccgtcc ggcctccctg acatgcagcc ctctggaccc
                                                                          60
 cgaggttgga ccctactgtg acacacctac catgeggaca ctcttcaacc tcctctggct
                                                                         120
 tgccctggcc tgcagccctg ttcacactac cctgtcaaag tcagatgcca aaaaagccgc
                                                                         180
 ctcaaagacg ctgctggaga agagtcagtt ttcagataag ccggtgcaag accggggttt
                                                                         240
 ggtggtgacg gacctcaaag ctgagagtgt ggttcttgag catcgcagct actgctcggc
                                                                         300
 aaaggcccgg gacagacact ttgctgggga tgtactgggc tatgtcactc catggaacag
                                                                         360
 ccatggctac gatgtcacca aggtctttgg gagcaagttc acacagatct cacccgtctg
                                                                         420
 gctgcagctg aagagacgtg gccgtgagat gtttgaggtc acgggcctcc acgacgtgga
                                                                         480
 ccaagggtgg atgcgagctg tcaggaagca tgccaagggc ctgcacatag tgcctcggct
                                                                         540
 cctgtttgag gactggactt acgatgattt ccggaacgtc ttagacagtg aggatgagat
                                                                         600
 agaggagetg ageaagaeeg tggteeaggt ggeaaagaae eageatiteg atggettegt
                                                                         660
 ggtggaggtc tggaaccagc tgctaagcca gaagcgcgtg ggcctcatcc acatgctcac
                                                                         720
 ccacttggcc gaggctctgc accaggcccg gctgctggcc ctcctggtca tcccgcctgc
                                                                         780
 catcacccc gggaccgacc agctgggcat gttcacgcac aaggagtttg agcagctggc
                                                                         840
 ccccgtgctg gatggtttca gcctcatgac ctacgactac tctacagcgc atcagcctgg
                                                                         900
 coctaatgca cocctgtoot gggttogago otgogtocag gtootggaco ogaagtocaa
                                                                         960
 gtggcgaagc aaaatcctcc tggggctcaa cttctatggt atggactacg cgacctccaa
                                                                        1020
 ggatgcccgt gagcctgttg tcggggccag gtacatccag acactgaagg accacaggcc
                                                                        1080
 ccggatggtg tgggacagcc aggyctcaga gcacttette gagtacaaga agageegcag
                                                                        1140
 tgggaggcac gtcgtcttct acccaaccct gaagtccctg caggtgcggc tggagctggc
                                                                        1200
 ccgggagctg ggcgttgggg tctctatctg ggagctggcc agggcctgga ctacttctac
                                                                        1260
 gacctgctct aggtgggcat tgcggcctcc gcggtggacg tgttcttttc taagccatgg
                                                                        1320
 agtgagtgag caggtgtgaa atacaggcct ncactccgtt tgctgtgaaa aaaaaaaaa
                                                                        1380
                                                                        1404
 aaaaaaaaa aaaaaaaaa aaaa
<210> 224
<211> 707
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (7.05)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (706)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (707)
<223> n equals a,t,g, or c
<400> 224
ngegegeetg cagtegacae tagtggatee aaagaatteg geacgaggge aggteeaggg
                                                                          60
ctcagaaatc agetctattg acgaattctg ccgcaagttc cgcctggact gcccgctggc
                                                                         120
                                                                         180
catggagcgg atcaaggagg accggcccat caccatcaag gacgacaagg gcaacctcaa
```

				-		,
ccactacate	gcagacgtgg	tetegetett	catcacddtc	atqqacaaqc	tacacctaaa	240
	atggatgaga					300
						360
	ctcccacccg					420
	atgtcggcgt					
	tcagcctaca					480
	acagaagggc					540
	tcatccacac					.600
	ttttgggccg				accttcaaaa	660
aaaaaaaaa	aaaaactcrg	aadaaaccca	gtcccaatcc	ccccnnn		707
<210> 225	•					
<211> 1384						
<212> DNA						
<213> Homo	sapiens					
<400> 225		•				
	agtgacagca					60
	ggttcagcga					120
	ggagcggaaa					180
agcccctcag	ccatgttggg	agccaagcca	cactggctac	caggtcccct	acacagtccc	240
gggctgccct	tggttctggt	gcttctggcc	ctgggggccg	ggtgggccca	ggaggggtca	300
gagcccgtcc	tgctggaggg	ggagtgcctg	gtggtctgtg	agcctggccg	agctgctgca	360
ggggggcccg	ggggagcagc	cctgggagag	gcaccccctg	ggcgagtggc	atttgctgcg	420
gtccgaagcc	amcaccatga	gccagcaggg	gaaaccggca	atggcaccak	tggggccatc	480
tacttcgacc	aggtcctggt	gaacgagggc	ggtggctttg	accgggcctc	tggctccttc	540
gtagcccctg	tccggggtgt	ctacagcttc	cggttccatg	tggtgaaggt	gtacaaccgc	600
	aggtgagcct					660
	tgacccggga					720
gaccgagtgt	ctctgcgcct	gcgtcggggg	aatctactgg	gtggttggaa	atactcaagt	780
	tcctcatctt					840
	actttcttct					900
	ytcctatccc					960
	ararctgwgg					1020
	tcytcttgct					1080
	camactctga					1140
	tgttccagca					1200
	ttaggcttcc					1260
					ttggcccagc	1320
	ctatcaataa					1380
tcga			3			1384
					•	
•	•					
<210> 226						
<211> 774						
<212> DNA					e.	
<213> Homo s	sapiens					
	-		•		•	
<220>				•		
<221> SITE						
<222> (773)						
<223> n equa	als a,t,q, c	or c				
	, - / 3 / 0				•	
<400> 226						
	aagaaatgac	aagggaggga	gatgagatgg	aaaggtgttt	ggaagagata	60
	gaaagaaatt					120
	tttaattaat					180
	gtttgtctgc	-				240
	220250090			. ,		

```
ttcgatgttg ctgagattta catatgactc ttgtcaacat ctcatctttt gacccaatct
                                                                       300
 tattcattta ataagaggtc tcattcattt gcatggaaaa atgctcattg tatattgcaa
                                                                       360
 agtgaaaata acgagttgca aaacagtgta tacatatatg tgtgtatata tgtacacttt
                                                                       420
 atttgtacat ttctatgtga cataatgcaa aggaaagtgt ctgattttat tatacaccaa
                                                                       480
 aggitaacag tgaatcictg igigatcict tittitict tittigectat cigcatcitc
                                                                       540
 tcacttgcca aaaaatgaat atatgtttat gtgtgtatat tacttgtgtc acaaaaaacc
                                                                       600
 ctaaagtaga cagtaaaaga acttgtcaat cgcctttgga aggcaatgaa acacttaata
                                                                       660
 aactctcaat aacagaagcg taaaaatgaa atgtaaacct ccaattacct ctggatctct
                                                                       720
 774
<210> 227
<211> 865
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (344)
<223> n equals a,t,g, or c
<400> 227
 ccacgcgtcc ggcctttctt ggccagaggc gccggttgga ctcacgggcg gggcatgatg
                                                                        60
 ggtaacagga ccggtggggt ccccaggaag tcctagaggg ggtcggggtt tgggtggaca
                                                                       120
 agettteete gteetetee gaeagagetg aegtgteetg ggtteeaeeg ggagegggea
                                                                       180
 tttccaccgg acgggagggt tcggggtgtc cggggctggg gaatacgtag gggttgccgc
                                                                       240
 geggtgtggg gagttgggge gtgtggetge agteceggga gttettggag ggggteggee
                                                                       300
 caccgagett ceggacegge tgatetgeee gtagettgee gganggargg eggagetgae
                                                                       360
 teteegteee tteteecate ceeteeagtg gtgggtaegg geaceteget ggegetetee .
                                                                       420
 tecetectgt ecctgetget etttgetggg atgeagatgt acageegtea getggeetee
                                                                       480
 accgagtggc tcaccatcca gggcggcctg cttggttcgg gtctcttcgt gttctcgctc
                                                                       540
 actgccttca ataatctqqa qaatcttqtc tttqqcaaaq qattccaaqc aaaqatcttc
                                                                       600
 cotgagatto tectgtgeet cetgttgget etetttgeat etggeeteat ceaecgagte
                                                                       660
 tgtgtcacca cctgcttcat cttctccatg gttggtctgt actacatcaa caagatctcc
                                                                       720
 tccaccctgt accaggcage agetccagte etcacaccag ecaaggtcae aggcaagage
                                                                       780
                                                                       840
 aagaagagaa actgaccctg aatgttcaat aaagttgatt ctttgtaaaa aaaaaaaaa
                                                                       865
 aaaaaaaaaaaaaa aaaaa
<210> 228
<211> 1102
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (462)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (469)
<223> n equals a,t,g, or c
<400> 228
ttttttttt accatttaaa ataaaatgaa agtgaccttc tgtttataaa aatctttgtc
                                                                       60
tgcatctctg cttatttcct tagaagagat tccaagaagc ggtgagtgat ttcacggcag
                                                                      120
```

cagagggttg ggacatatta cgggcgcgga tccctcttgg agtgagatga ctctccggag

```
agatttagtc gtcaccctcg cgtgtgaggc tgcgtcacac cccagggatg tgtctatcaa
 gatggaagat cttttacacg ctcttgattt tgtttgscty tttttctatt actagtgaga
                                                                         300
 akgaaacttt ttatatgatt attatccatc ataatccaac acaaattact gcttcatgtt
                                                                         360
                                                                         420
 cttttacttt cctgtgaagg ttttagtgcc ttttaaaaaat tgctatatat taagcttgtt
 aatacttcca tgctgtattt gtggscatca rtttccccgg gnacaggcnt gcacattttg
                                                                         480
 ccttcacacy ctgggtggtt tttcattttc amttctattt ctcgttcttc tatcgtttta
                                                                         540
 tgttcagacg ggtttctccg tgtagaaagc agtttatgaa gatttacttt cgacagtctt
                                                                         600
 ctctctactt tctacagtga attctctgat gtgtctggga gtttgggggt ctgggtaaga
                                                                         660
                                                                         720
 rtcctcctct caccctattc tctattacga tccacagcct catgctttat garattggtg
 geogggareg ggggagattt geggateece caagecagae titateecee tateeetgee
                                                                         780
                                                                         840
 tetggatece aegtaeagge etgggaacte eetgtgggta ggggeeaatg gtetegeaet
 ctcacctgta ccccagggct ggcacaggat ggtcaaggag agaggctgcc caagcgcatc
                                                                         900
 cytctggtgt ccccctgaca cgcctccaaa gtgagcaggt aggtttcaac agccccacgt
                                                                         960
                                                                        1020
 tgcaggtggg agatgaagct cagggtggag accagtatct cacagttctc tttgcatggc
 cgggtactig ttagtcaact gatcaagtga aaattctagc cccagaggca ggagaatccg
                                                                        1080
                                                                        1102
 gaacaaaatt aaaccagcca gg
<210> 229
<211> 744
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<2.22> (303)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (392)
<223> n equals a,t,g, or c
<400> 229
gaattcggca cgagagtggc tggagtctgg ctgcagaggg aagacatcag cagggaggga
                                                                          60
 gccagggcct gtcacatctt tcctctggcc attgtcctgg tctttgtaag cccagaatct
                                                                         120
                                                                         180
 ccccttccct gaagggaggc cagcacccca ggagggcagc aggtgtgctg tgagggttgg
 agtagtgtga gaggtcaggg tacactagaa tggccatgga caccatgtgg gggtgctctg
                                                                         240
                                                                         300
 ggotgggoca cagaacagtg tectteetge tgeteeteee etgeagette eecegacett
                                                                         360
 gtngtttatt tggtttgata ccaatcagca gacctgcaa ggtggaagct cccaggctct
                                                                         42'0
 cagtcccacs actotcatgt gccagtcacc cntactgtaa ctgcccaatg agtacttott
                                                                         480
 gcccactgcc aagatagagc cagtttacca agacagggga attgcagtag agaaagagtt
 gaatatacat agagccagct aaatgggaga gtggagtttt cttattactt aaatcagcct
                                                                         540
                                                                         600
 cccytaaaat tcagaggtga gaatttttca aggacagttt ggtggscagg cctagggaat
                                                                         660
 ggatgctgct gattggctag ggatgcaatc ataggggtgt agaaaagtwc cttgtgcact
 gagtccactt ttggtgagag ctaccaagga gctgctggtc tgctggtccc ggtagagcca
                                                                         720
 tctggtgtca ggaatgcaaa agtg
<210> 230
<211> 1935
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1)
<223> n equals a,t,g, or c
```

<220>

```
<220>
<221> SITE
<222> (1921)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1927)
<223> n equals a,t,g, or c
<400> 230
 ntctacccta atcaagatgg ggacatactt cgcgaccagg ttcttcatga acatatccag
                                                                          60
                                                                         120
 agattgtcta aagtagtgac tgcaaatcac agagctcttc agataccaga ggtttatctt
 cgagaagcac catggccatc tgcacaatca gaaatcagga caataagtgc ttataaaacc
                                                                         180
 ccccgggaca aagtgcagtg catcctgaga atgtgctcta cgattatgaa cctcctgagc
                                                                         240
                                                                         300
 ctggccaatg aggactctgt ccctggagcg gatgactttg ttcctgtgtt ggtgtttgtg
 ttgataaagg caaatccacc ctgtttgctg tctactgtgc agtatatcag tagcttttat
                                                                         360
 gctagctgtc tgtctggaga ggagtcctat tggtggatgc agttcacagc agcagtagaa
                                                                         420
                                                                         480
 ttcattaaaa ccatcgatga ccgaaagtga ccaagaccaa ggcccaccaa ggcagcagac
 tgttaatcag acaaacagat ctctgagaag gtgcatcagc tgctttgaag gctgaagatt
                                                                         540
                                                                         600
 gttttgtatg atactgcaca gcatcaggca ttttaaagca gatctttact aaacaggtta
                                                                         660
 atgagetaae aageaggtte tetegtettt gggetettte etttetgagt tgeatattet .
 attitictigt coccaagtag agactagtad tacaaaaagg gaccacatti ticaagtati
                                                                         720
                                                                         780
 tctaagtata aaaaacaaaa caaaaatctc ttaggaaatg tctagacctc cattcttgga
 ttccctttct ttccttttat tttaaaaaag aacagtaccc ctcttttaag atgctgtctt
 acattaatga gcatctaatg gaaagaággt atgagttgca ctgaggatta gaatagtggt
 gcgttagtgg cattatctat aaatacactc acctaaattg aaagctaaga aggaaatgta
                                                                         960
 aatataatat atatttatat ttgatgtaat atggacatct gcagattcta ataaacaagg
                                                                        1020
                                                                        1080
 actattgctg atagtaggct gtgacatact gtcttgtgaa atggtttcct tgacaaaatt
 taagctgagc ttaaaagcaa aaaaacaaaa agtacacaga aatatttatt aaaatgtaat
                                                                        1140
                                                                        1200
 acagtttatt gaactttcta ggtatggagt ttgatggaca gggctgccty taatgagtgt
                                                                        1260
 gaaggtcact aagtcactta gacatctcac cgtggaagtt tgtgagcctg cattaggaga
                                                                        1320
 tagactgatt accatacatg acataaaaag gaacagtgga tagctcatac tttatggtgg
                                                                        1380
 ttottotoot cogaaataat atactgoaga aatoocagao agagotoott acaaacottt
                                                                        1440
 aattgtaata tatttttgat gattattcac attgaatgca cagaccaaga attcagtgaa
                                                                        1500
 tgtcattttt taaaaaacta atttgtattg tctgctctag tgatacaagt tttactagtg
                                                                        1560
 ataaactatt ttaatcaacc atactattct tatgģaaaaa aatatctatt ttggcaggtt
                                                                        1620
 tetgtgeett tattteeete ttetgaaaaa aagtetgtgt ttteatagtt tggtttgeat
                                                                        1680
 tgtatatcaa taattaatca ggaatgggtt ttggtgcctg aaaaattggc catggaggca
                                                                      . 1740
 caccaaagct tcaagcacaa gtcttgtaca tgggccatca ctgtctggtt tcacttcgtg
                                                                       - 1800
 tgtttcctaa acacatttag ctgctttttt aacaaactca gccccatact tgagtccctt
 gttgttggga gcatttccag gcatctttta agggaactgt gacaaacagc ctcgggcaga
                                                                        1860
 tgaacacgga ggctctctgt tgtctgtctc tgagatcttt gtgtctggga atgcctaaag
                                                                        1920
nttttgnttt ttttt
                                                                        1935
<210> 231
<211> .1035
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (1032)
<223> n equals a,t,g, or c
```

```
<221> SITE
<222> (1034)
<223> n equals a,t,g, or c
<400> 231
 agaggcctgg ctgcgttgcc ctatctccgt ctccgccacc cacttagcgt tttaggcatc
                                                                      60
 aattaccagc agtttctccg ccactatctg gaaaattacc cgattgctcc cggcagaata
                                                                      120
                                                                      180
 caagagcttg aagaacgccg cagttgcgtg gaagcctgca gagcaaggga agcagcgttt
 gatgccgaat atcagcgaaa tcctcacagg gtggacctcg atattttaac ctttacgata
                                                                      240
 gctctgactg cctctgaagt tatcaaccct ctgatagaag aacttggttg cgataagttt
                                                                      300
 atcaatagag aatagttagg tggtgacact acttcaagag aacctctgca ttccagtcat
                                                                      360
                                                                      420
 accaatcctg caacttgatt ttcagaagtc aagagtatat cgcgataaga cagtgcacag
                                                                      480
 gtggagggga aaaaaagggg gaggggaag cttatcttga aaaagcatca cagaagtaga
                                                                      540
 aaaaaatgtc gaaagcatta taactgtaac gttctttgag ttttgtgattg atccacattt
                                                                      600
 ttccccctgc attatggaaa atgtctctca gcattgcttt attacaaagt aaaggatggt
 tttataaaat tgagactgat gaaacatcaa tactagagcc catgaggatg aaagaaatta
                                                                      660
 tcaaataqtq ctqaacaqaa taaqatqtta acgctgagtt attaggactg gaaggctatg
                                                                     720
                                                                     780
 aaaagaactt gaaattgtcg gaatatgtgc tctcttcatg tcatattcaa tagaagtttc
                                                                      840
 tagtttaaga ttgattttgt gttttcttag gcatttcaag tgacaagcaa agtaaatgta
 tatattatgt gataaatcat gttttcaaga acgtcaaatt tctggacttt tttctttcaa
                                                                     900
                                                                     960
 tttttaattt ttaaagtttt tttggtatta aaaaatcyat tcacaagcca aaaaatwtwt
                                                                     1020
 waaatwtwcm gcgaaaagcc aaaaaaaaaa aaaammaggg ggggccgggc cccatccccc
                                                                     1035
 caagggggtc cngnt
<210> 232
<211> 760
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (438)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (741)
<223> n equals a,t,g, or c
<400> 232
                                                                      60
gggtcgaccc acgcgtccgc tgaccagtcc gttatagata cttcttccta taccaaaact
                                                                     120
gtttaaacag gtgccaccac aagggatgtc gtccttactc tctgcgggtc ttcaagcatc
                                                                     180
cetttgtggg aaargtetet gggcaageae gtggtatttg gtetgetget tgetteeett
                                                                     240
 tttccaccag ggatgttgtg atcataagtc aaaacaacag tatattccaa atctcaaaag
                                                                     300
ctattgtggc ctgagcacaa ttgaaatcta gcagagtttt tcctatgtag cttttagagta
                                                                     360
actettetge ttetetgtea ettacaatte aggitetgee tittgeetaag ageatgagea
                                                                      420
gaagagteet catgtgacge ttagttetat tgcagteetg ggtgaaacta tttaagewat
ggggctgctk ctccccanwt cctccctaac aattcgttgt gtggacttct catctaaaag
                                                                      480
gttagtggct tttgcttggg atcagtgctc tctattgatg ttcttgctgg tctccagaca
cattcctgtt gcattaagac ttgaaagact tgtagatgtg tgatgttcag gcacaggatg
                                                                      600
 ctgaaagcta tgttactatt cttagtttgt aaattgtcct tttgatacca tcatcttgtt
                                                                     660
                                                                     720
 760
```

<210> 233 <211> 2057

```
<212> DNA
<213> Homo sapiens
<400> 233
ccgagccggc tgcgccgggg gaatccgtgc gggcgccttc cgtcccrgtc ccatcctcgc
                                                                       60
cgcgctccag cacctctgaa gttttgcagc gcccagaaag gaggcgagga aggagggagt
                                                                      120
180
                                                                      240
agggggggg caaaaatggc tggggcaatt atagaaaaca tgagcaccaa gaagctgtgc
                                                                      300
attgttggtg ggattctgct cgtgttccaa atcatcgcct ttctggtggg aggcttgatt
gctccagggc ccacaacggc agtgtcctac atgtcggtga aatgtgtgga tgcccgtaag
                                                                      360
aaccatcaca agacaaaatg gttcgtgcct tggggaccca atcattgtga caagatccga
                                                                      420
gacattgaag aggcaattcc aagggaaatt gaagccaatg acatcgtgtt ttctgttcac
                                                                      430
attcccctcc cccacatgga gatgagtcct tggttccaat tcatgmtgtt tatcctgcag
ctggacattg ccttcaagct aaacaaccaa atcagrgaaa atgcagaagt ctccatggac
                                                                      660
gtttccctgg cttaccgtga tgacgcgttt gctgagtgga ctgaaatggc ccatgaaaga
                                                                      720
gtaccacgga aactcaaatg caccttcaca tctcccaaga ctccagagca tggagggccg
                                                                      780
gttactatga atgtgatgtc cttcctttca tggaaattgg gtctgtggcc catgaagttt
taccttttaa acatccggct gcctgtgaat gagaagaaga aaatcaatgt gggaattggg
                                                                      840
gagataaagg atateeggtt ggtggggate caccaaaatg gaggetteae caaggtgtgg
                                                                      900
 tttgccatga agaccttcct tacgcccagc atcttcatca ttatggtgtg gtattggagg
                                                                      960
aggatcacca tgatgtcccg acccccagtg cttctggaaa aagtcatctt tgcccttggg
                                                                     1020
 atttccatga cctttatcaa tatcccagtg gaatggtttt ccatcgggtt tgactggacc
                                                                     1080
 tggatgctgc tgtttggtga catccgacag gcatcttcta tgcratgctt ctktccttct
                                                                     1140
ggatcatctt ctgtggcgag cacatgatgg atcagcacga gcggaaccac atcgcagggt
                                                                     1200
attggaagca agtcggaccc attgccgttg gtccttctgc ctcttcatat ttgacatgtg
                                                                     1260
                                                                     1320
 tgagagaggg gtacaactca cgaatccctt ctacagtatc tggactacag acattgggaa
                                                                     1380
 cagagetgge catggettte atcategtgg etggaatetg cetetgeete taactteetg
 tttctatgct tcatggtatt tcaggtgttt cggaacatca gtgggaagca gtccagcctg
                                                                     1440
                                                                     1500
 ccagctatga gcaaagtccg gcggctacac tatgaggggc taatttttag gttcaagttc
 ctcatgctta tcaccttggc ctgcgctgcc atgactgtca tcttcttcat cgttagtcag
                                                                     1560
 gtaacggaag gccattggga aatggggcgg cgtcacagtc ccaagtgaac agtgcctttt
                                                                     1620
 tcacaggcat ctatgggatg tggaatctgt atgtctttgc tctgatgttc ttgtatgcac
                                                                     1680
 catcccataa aaactatgga gaagaccagt ccaatggaat gcaactccca tgtaaatcga
                                                                     1740
 gggaagattg tgctttgttt gtttcggaac tttatcaaga attgttcagc gcttcgaaat
                                                                     1800
                                                                     1860
 attectteat caatgacaac geagettetg gtatttgagt caacaaggea acacatgttt
 atcagctttg catttgcagt tgtcacagtc acattgattg tacttgtata cgcacacaaa
                                                                     1920
                                                                     1980
 tacactcatt tagcctttat ctcaaaatgt taaatataag gaaaaaagcg tcaacaataa
                                                                     2040
atattetttq aqtattqtet tacttetett aaaaaaaaaa aaaaaaacte gtgeegaatt
                                                                     2057
cggcacgagc ggcacga
<210> 234
<211> 2084
<212> DNA
<213> Homo sapiens
```

```
<211> 2004
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (775)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2080)
<223> n equals a,t,g, or c
```

<223> n equals a,t,g, or c

<220> <221> SITE

```
<222> (2083)
<223> n equals a,t,g, or c
<400> 234
ggcagagggc catttcctgc aaagagccaa accccattc ctctgtgccc ctcctctccc
                                                                         60
accaagtgct ttataaaaat agctcttgtt accggaaata actgttcatt tttcactcct
                                                                        120
ccctcctagg tcacactttt cagaaaaaga atctgcatcc tggaaaccag aagaaaaata
                                                                        180
                                                                        240
 tgagacgggg aatcatcgtg tgatgtgtgt sctgcctttg gctgagtgtg tggagtcctg
 ctcaggtgtt aggtacagtg tgtttgatcg tggtggcttg aggggaaccg cttgttcaga
                                                                        300
                                                                        360
 gctgtgactg cggctgcact gcagagaagc tgcccttggc tgctcgtagc gccgggcctt
                                                                        420
ctctcctcgt catcatccag agcagccagt gtccgggagg cagaaggtac cggggcagct
 actggaggac tgtgcgggcc tgcctgggct gcccctccg ccgtggggcc ctgttgctgc
                                                                        480
 tgtccatcta tttctactac tccctcccaa atgcggtcgg cccgcccttc acttggatgc
                                                                        540
 ttgccctcct gggccttctc gcaggcactg aacatcctcc tgggcctcaa gggcctggcc
                                                                        600
 ccagctgaga tctctgcagt gtgtgaaaaa gggaatttca acgtggccca tgggctggca
                                                                        660
                                                                        720
 tggtcatatt acatcggata tctgcggctg atcctgccag.agctccaggc ccggattcga
 acttacaatc agcattacaa caacctgcta cggggtgcag tgagccagcg gtgtnatatt
                                                                        780
 ctcctcccat tggactgtgg ggtgcctgat aacctgagta tggctgaccc caacattcgc
                                                                        840
                                                                       900
 ttcctggata aactgcccca gcagaccggt gaccgtgctg gcatcaagga tcgggtttac
 agcaacagca totatgaget tetggagaac gggcageggg egggcacetg tgteetggag
                                                                       960
 tacgccaccc ccttgcagac tttgtttgcc atgtcacaat acagtcaagc tggctttagc
                                                                       1020
 ggggaggata ggcttgagca ggccaaactc ttctgccgga cacttgagga catcctggca
                                                                       1080
 gatgcccctg agtctcagaa caactgccgc ctcattgcct accaggaacc tgcagatgac
 agcagettet egetgteeca ggaggttete eggeacetge ggeaggagga aaaggaagag
                                                                       1200
 gttactgtgg gcagcttgaa gacctcagcg gtgcccagta cctccacgat gtcccaagag
                                                                       1260
                                                                       1320
 cetgagetee teateagtgg aatggaaaag eccetecete teegeacgga titetetiga
                                                                       1380
 gacccagggt caccaggeca gagectecag tggtetecaa geetetggae tgggggetet
 cttcagtggc tgaatgtcca gcagagctat ttccttccac agggggcctt gcagggaagg
                                                                       1440
gtccaggact tgacatctta agatgcgtct tgtccccttg ggccagtcat ttcccctctc
                                                                       1500
 tgagcctcgg tgtcttcaac ctgtgaaatg ggatcataat cactgcctta cctccctcac
                                                                       1560
 ggttgttgtg aggactgagt gtgtggaagt ttttcataaa ctttggatgc tagtgtactt
                                                                       1620
 agggggtgtg ccaggtgtct ttcatggggc cttccagacc cactccccac ccttctcccc
                                                                       1680
 tteetttgee eggggaegee gaactetete aatggtatea acaggeteet tegecetetg
                                                                       1740
 gctcctggtc atgttccatt attggggagc cccagcagaa gaatggagag gaggaggagg
                                                                       1800
                                                                       1860
 ctgagtttgg ggtattgaat cccccggctc ccaccctgca gcatcaaggt tgctatggac
                                                                       1920
 tetectgeeg ggcaactett gegtaateat gactatetet aggattetgg caccaettee
 ttccctggcc ccttaagcct agctgtgtat cggcaccccc accccactag agtactccct
                                                                       1980
 ctcacttgcg gtttccttat actccacccc tttctcaacg gtcctttttt aaagcacatc
                                                                       2040
                                                                       2084
 tcagattaaa aaaaaaaaa aaaaaaaaa aggggggcn gcnt
<210> 235
<211> 2143
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2058)
<223> n equals a,t,q, or c
<220>
<221> SITE
<222> (2080)
```

```
<222> (2115)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2132)
<223> n equals a,t,g, or c
<400> 235
 tegacecacg egteeggttg aatteettga eetgeaaaca catatttatt ageetgaete
                                                                          60
aaacaatgaa gctattaaaa cttcggagga acattgtaaa actctctttg tatcggcatt
                                                                         180
 tcaccaacac gcttattttg gcagtggcag catccattgt gtttatcatc tggacaacca
                                                                         240
 tgaagttcag aatagtgaca tgtcagtcgg actggcggga gctgtgggta gacgatgcca
 totggcgctt gctgttctcc atgatectct ttgtcateat ggttctctgg cgaccatetg
                                                                         300
                                                                         360
caaacaacca gaggtttgcc ttttcaccat tgtctgagga agaggaggag gatgaacaaa
 aggagcctat gctgaaagaa agctttgaag gaatgaaaat gagaagtacc aaacaagaac
                                                                         420
                                                                         480
 ccaatggaaa tagtaaagtt aacaaagcac aggaagatga titgaagtgg gtagaagaga
 atgttccttc ttctgtgaca gatgtagcac ttccagccct tctggattca gatgaggaac
                                                                         540
                                                                         600
 gaatgatcac acactttgaa aggtccaaaa tggagtaagg aatgggaaga tttgcagtta
                                                                         660
 aagatggcta ccatcaggga agagatcagc atctgtgtca gtcttctgta cggctccatg
                                                                         720
 ggattaaagg aagcaatgac atcctgatct gttccttgat ctttgggcat tggagttggc
                                                                         780
 gagaggtgtc agaacaaaga gaacatctta ctgaaaacaa gttcataaga tgagaaaaat
 ctacgagett ettatttaca acaetgetge eccettteet eccagaetet gacatggatg
                                                                         840
 ttcatgcaac ttaagtgtgt tgttcctgaa ctttctgtaa tgtttcattt tttaaatctg
                                                                         9.00
 acaaactaaa aagtttaacg tettetaaaa gattgteate aacaccataa tatgtaatet
                                                                         960
                                                                        1020
 ccaggagcaa ctgcctgtaa tttttattta tttagggagt tacataggtg atgggggaaa
                                                                        1080
 ttgttaacta cctttcattt tcctgggaag tcaaggttac atcttgcaga ggttgttttg
 agaaaaaagg gcccttctga gttaaggagc catagttcta tcaatgatca aaagaaaaaa
                                                                        1140
 aaaaaaaaga gaaactgtta cagtatgatt cagatcattt aaaaaagcaa aatcaagtgc
                                                                        1200
 aattttgttt acaaatggtg tatattaaag atttttctat ttcagatgta ctttaaagag
                                                                        1250
 aaatattage ttaactettt tgacatetge tattgtgaca cateccattg etggcaatgt
                                                                        1320
 ggtgcacact ccgaaacttt taactactgt tttgtaagcc tccaagggtg gcattgcagg
                                                                        1380
                                                                        1440
 gtccttaggc aatgttttgt ttgcctttat gcagagaggt gctccaagtg ctgtgattga
 gcaccgtgct agaggaactg taatgcttca gaagttgtag cttatacaaa ggaaacaggt
                                                                      1500
 cctgctggct taatttaaac agttattgca tgaagtagcg tggaggccct ggactgctgc
                                                                        1560
 tegttettta ggatggaetg ttetggtate tggtattggt ttagagaetg ttaataaggg
                                                                        1620
 acatcacaag gtgatgggat tcatttgaag cactctattt ctgttttaat ggttttatcc
                                                                        1680
 aattttgcct tcccaagatt tttgttctac ataaaaagtt catgccactt tttaatataa
                                                                        1740
                                                                        1800
 aaaaatttaa caaaattaat gtatttttct cattttttc aaactttttc taaagactct
                                                                        1860
 ttctgtcaaa ctcatgaaaa atttctttct atggctttta ttctagattg tcttattttc
 tgttaaaacc aatgaccaca tgaccacaat cttcactaac tcatactgca gtgaaagtgt
                                                                        1920
 taacccttag gtagtttete tacaactett tgetatggtg atttttaaaa aagttteeta
                                                                        1980
 gggaagtatc tctgagggaa caggcaatct gaaggaactg actatattct ccatggctaa
                                                                        2040
                                                                        2100
 gtccattagg ccaaaagnct gggtgggtat tggttgtcan gctgtctatt ggcatattaa
                                                                        2143
 aaacgtaggc cgganggaat aattaggttg tnatgccggc ggg
```

```
<210> 236
```

<211> 1133

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (528)

<223> n equals a,t,g, or c

```
<221> SITE
 <222> (552)
 <223> n equals a,t,g, or c
 <220>
 <221> SITE
 <222> (1133)
 <223> n equals a,t,g, or c
 <400> 236
                                                                       60
  ggcacagctt ggaatgaacc cctgtggata agggggacta ttagatagaa taaacatcaa
                                                                      120
  taaatgcttg atgaataaac gctaatccta ccttcccagc ctgacacctc ccagtggaca
                                                                      180
 ccacacttca cttgaageet tagaaacett teecacecat getteeagee etggetteat
                                                                      240
  qttqccattt ctcacccca gaacaggccg cccgcctgaa gaaactacaa gagcaagaga
                                                                      300
  aacaacagaa agtggagttt cgtaaaagga tggagaagga ggtgtcagat ttcattcaag
                                                                      360
  acagtgggca gatcaagaaa aagtttcagc caatgaacaa gatcgagagg agcatactac
  atgatgtggt ggaagtggct ggcctgacat ccttctcctt tggggaagat gatgactgtc
                                                                      420
  gctatgtcat gatcttcaaa aaggagtttg caccctcaga tgaagagcta gactcttacc
                                                                      480
  gtcgtggaga ggaatgggac ccccagaagg ctgaggagaa gcggaacntg aaggagctgg
                                                                      540
  cccagaggca angaggagga ggcagcccag caggggcctg tggtggtgag ccctgccagc
                                                                      600
  gactacaagg acaagtacag ccacctcatc ggcaagggag cagccaaaga cgcagcccac
                                                                      660
  atgctacagg ccaataagac ctacggctgt ktgcccgtgg ccaataagag ggacacacgc
                                                                      720
  tocattgaag aggotatgaa tgagatcaga gocaagaago gtotgoggoa gagtggggaa
                                                                      780
  840
  gggggcaggg agagacaagg ctgctgctat tagagcccat cctggagccc cacctctgaa
                                                                      900
  ccacctccta ccagctgtcc ctcaggctgg gggaaaacag gtgtttgatt tgtcaccgtt .
                                                                      960
  ggagettgga tatgtgegtg geatgtgtgt gtgtgtgtga gagtgtgaat geacaggtgg
                                                                     1020
  gtatttaatc tgtattattc cccgttcttg gaattttctt cccatggggc tggggtactt
                                                                     1080
  1133
 <210> 237
 <211> 1025
 <212> DNA
 <213> Homo sapiens
 <400> 237
                                                                       60
  cctggcccac attgcttcat tggcctggcc atgcgcctgt actatggcag ccgctagtcc
  ctgacaactt ccaccctgat teeggacect gtagattggg cgccaccacc agateeeect
                                                                      120
  cocaggeott cotcoctoto coatcagoag cootgtaaca agtgcottgt gagaaaagot
                                                                      180
  ggagaagtga gggcagccag gttattctct ggaggttggt ggatgaaggg gtaccctagg
                                                                      240
  agatgtgaag tgtgggtttg gttaaggaaa tgcttaccat cccccacccc caaccaagtt
                                                                      300
  cttccagact aaagaattaa ggtaacatca atacctaggc ctgagaaata accccatcct
                                                                      360 .
  tgttgggcag ctccctgctt tgtcctgcat gaacagagtt gatgaaagtg gggtgtgggc
                                                                      420
  aacaagtggc tttccttgcc tactttagtc acccagcaga gccactggag ctggctagtc
                                                                       480
  cagoccagoo atggtgcatg actottocat aagggatoot caccottoca otttoatgca
                                                                      540
                                                                       600
  agaaggeeea gttgeeacag attatacaae cattaceeaa aceaetetga cagteteete
                                                                       660
, cagiticcage aatgeetaga gacatgetee etgecetete cacagitgetg etececacae
                                                                      720
  ctagectttg ttetggaaac eccagagagg getgggettg acteatetea gggaatgtag
                                                                       780
  cccctgggcc ctggcttaag ccgacactcc tgacctctct gttcaccctg agggctgtct
                                                                       840 '
  tgaagcccgc tacccactct gaggetecta ggaggtacca tgcttcccac tctggggcct
                                                                       900
  gcccctgcct agcagtctcc cagctcccaa cagcctgggg aagctctgca cagagtgacc
  tgagaccagg tacaggaaac ctgtagetca atcagtgtet etttaactge ataagcaata
                                                                      960
                                                                      1020
  agatettaat aaagtettet aggetgtagg gtggtteeta caaccacage caaaaaaaaa
                                                                     1025
  aaaaa
```

```
<211> 1400
<212> DNA
<213> Homo sapiens
<400> 238
                                                                        60
qqcacagttt attaatacct attatgggaa agtcactttg gttggcattg aaaattacat
catctttaaa gcagtatttg tccccagatg gactcatcac tagcaaagac taggttcatt
                                                                       120
ggaaggcata gggtgagaga atgggaagat gragtggagg cgggttgtta aagtgctgtc
                                                                       180
                                                                       240
agtgagtgat tttgtctact tgaataatgg tccatgtttg ggggcatatt gtgtttcata
agaagtgaaa ggtatttgca aagtaagcta caaatgaccc ataaatctgt taacaacagt
                                                                       300
ccttaatatg caaagatgaa aaacaagcat tactgctacc caaagggaac tggtgcttgg
                                                                       360
                                                                       420
tgatgtgcag atggggctgt tggttaagag agctattaca ggttttctct cttaggtttc
ataggaggta gttactgaga tgagattgtt ttatcttttt gaatacagat ctcttgtctt
                                                                       480
540
ttttggctcc ttagtaatac tcctctgaca tttatttcta ttattcttca aagaaaggaa
                                                                       600
accaactgaa atgtttgctt taacaaacat tttaataagt tctctgggtt ttttttccc
                                                                       660
cttttaaaaa aattagcata taccatagca ataaaagaac taatgttaac tattgtatgc
                                                                       720
                                                                       780
tacaacttaa gtgatttttc taaagaagca caatgtcatt graagtatta ttgaaaagga
tcatagtcac attgaatttg tgaaggccaa agaaattgaa gggagtgata ttttcatttt
                                                                       840
atgatattca catatttagt aaattttgtg tacaagaata ccaggcagag tgttttaccc
                                                                       900
                                                                       960
atggaaacag gtttcagatt actttgtttt tactgttaga gtctcaagtt tagaaatgct
                                                                      1020
aacacttaaa tcagtttttt tctcactata cttgaagatt gttaatattt tgatatcttc
ctagcttgat ggaatttaaa catatcttca gatctgtgac agtgacagcc aataggactg
                                                                      1080
ataatattag cttcaaacca ataatatcca gggttaaaat aaaaatcata gtgaaagtac
                                                                      1140
gattgtaaaa ttatgctata ttaactttta agtctgtaat aacttgacat caaaatgtta
                                                                      1200
                                                                      1260
tgtaattacc ataaataatg gctagcgaga acatctttgg aaattctcaa attacctttc
ttactacact gtttgcagaa tgaatgtaga aatgatcctg ttagctttct gaatgttctg
                                                                      1320
tggttgaatg tgtttttgct taaataaagc ttttggtatt tgtttaaatw acaaaaaaa
                                                                      1380
                                                                      1400
aaaaaaaaa aaaaactcga
<210> 239
<211> 1250
<212> DNA
<213> Homo sapiens
<400> 239
gcccacgcgt ccgcccacgc gtccggcggt gcggagtatg gggcgctgat ggccatggag
                                                                        60
ggctactggc gcttcctggc gcygctgggg tcggcactgc tcgtcggctt cctgtcggtg
                                                                       120
                                                                       180
atsttcgccc tcgtctgggt cctccactac cgagaggggc ttggctggga tgggagcgca
                                                                       240
ctagagttta actggcaccc agtgctsatg gtcaccggct tcgtcttcat ccagggcatc
                                                                       300
gcatcatcgt ctacagactg ccgtggacct ggaaatgcag caagctcctg atgaaatcca
                                                                       360
tocatgcagg gttaaatgca gttgctgcca ttcttgcaat tatctctgtg gtggccgtgt
                                                                       420
ttgagaacca caatgttaac aatatagcca atatgtacag tctgcacagc tgggttggac
                                                                       480
tgatagctgt catatgctat ttgttacagc ttctttcagg tttttcagtc tttctgcttc
                                                                       540
catgggctcc gctttctctc cgagcatttc tcatgcccat acatgtttat tctggaattg
                                                                       600
tcatctttgg aacagtgatt gcaacagcac ttatgggatt gacagagaaa ctgattttt
                                                                       660
ccctgagaga tcctgcatac agtacattcc cgccagaagg tgttttcgta aatacgcttg
                                                                       720
gccttctgat cctggtgttc ggggccctca ttttttggat agtcaccaga ccgcaatgga
                                                                       780
aacgtcctaa ggagccaaat tctaccattc ttcatccaaa tggaggcact gaacagggag
                                                                       840
caagaggttc catgccagcc tactctggca acaacatgga caaatcagat tcagagttaa
                                                                       900
acartgaagt agcagcaagg aaaagaaact tagctctgga tgaggctggg cagagatcta
                                                                       960
ccatgtaaaa tgttgtagag atagagccat ataacgtcac gtttcaaaac tagctctaca
                                                                      1020
gttttgcttc tcctattagc catatgataa ttgggctatg tagtatcaat atttacttta
atcacaaagg atggtttctt gaaataattt gtattgattg aggcctatga actgacctga
                                                                      1080
attggaaagg atgtgattaa tataaataat agcagatata aattgtggtt atgttacctt
                                                                      1140
tatcttgttg aggaccacaa cattagcacg gtgccttgtg cakaatagat actcaatatg
                                                                      1200
                                                                      1250
tgaatatgtg tctactagta gttaattgga taaactggca gcatccctga
```

```
<210> 240
<211> 1307
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (651)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1064)
<223> n equals a,t,g, or c
<400> 240
                                                                        60
 ggcacgagag aaaagaggtt gagaatgttt tctagcaggc agaatgtgca tacatgtttt
 catgartgtc ctttgggtgc tgtttctttt aaatcctctg tgcacagggc tctggccttt
                                                                       120
 artaaactgt ttttctgtct tacgtcatgc tgactgggtg ctaggggctg attacaaagg
                                                                       180
 ggaagagttg aacagacatc aggggccgat gaaaccaaag gactaggagt caggagaaca
                                                                       240
                                                                       300
 agtcagggat taggagacag cggtttggtt tattgttatc cagctggagg actcctaggg
 gcagcagcag gaggaatacc agggccacgg aggggcagga gtctcacagt ggagggcaga
                                                                       360
 ctctaacaga tgccagctga acgctcgctg gccctggatg tcatacgagt tggggaccag
                                                                       420
                                                                       480
 aaatctgggc tcagagaacc cgtccaggga gatttgaagc catgggttat cttctagagt
 tgatactgat aatatatttt aatttttatt gatgtttaat accttctgaa acaggagggt
                                                                       540
 aagatcagat gggaagcccy totgttgaag gatottggga acottggtgg ttttttttt
                                                                       600
 ttggtttttt tttttttgat cgagctgtgg acatccttct taattcgatt ntgaggattt
                                                                       660
gtttaactaa aaagttccca aacacagaaa gggcctcccc acctgctttg gggagctgtc
                                                                       720
                                                                       780
 tgtsctggga gtgccaggca tccsatggga cccatcactg ccagtgtctg tgcctcccag
 aggtcagece tgtgtctgce ctggctctgt ctcctctgtg acagggcaga gcatttctgg
                                                                       840
                                                                       900
 tcagtttctc catggtgcct cccacccctt tgtaaagtgg atggacatga tggaattcag
 ttgtctcacc ctgatagcct gggtgttgat attcacttta cccgcactca gacacaggcg
                                                                       960
 accttgaage agtteteggt gtgtagagte caegtgacag teeccacage etececagat
                                                                      1020
 agetgtgtge etgtgegeta etgetgtgee atttteecaa ettnggegtt teactaaatg
                                                                      1080
 cagcigatet etetetetgi geaciegiga tecatgitga acaatacatg taggitetti
                                                                      1140
                                                                      1200
 ttccacgcaa tgtaagaaca tgatatactg tacgttggaa agcatttacc ttatttatat
 1260
 ctggagggg ggcccggtac ccaaatcgcc ggatagtgat cgtaaac
                                                                      1307
<210> 241.
<211> 888
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (830)
<223> n equals a,t,g, or c
<400> 241
 ctgttagaat gcccagttta cctggatggc aacccaacag tgctcctgcc cacctgccc
                                                                       60
 tcaatcctcc tagaattcag cccceaattg cccagttacc aataaaaact tgtacaccag
                                                                      120
 ccccagggac agtctcaaat gcaaatccac agagtgasmc accacctcgg gtagaatttg
                                                                      180
 atgacaacaa tecetttagt gaaagtitte aagaacggga acgtaaggaa egtttacgag
                                                                       240
 aacagcaaga gagacaacgg atccaactca tgcaggaggt agatagacaa agagctttgc
                                                                       300
```

```
agcagaggat ggaaatggag cagcatggta tggtgggctc tgagataagt agtagtagga
                                                                         360
 catctgtgtc ccagattccc ttctacagtt ccgacttacc ttgtgatttt atgcaacctc
                                                                         420
 taggacccct tcagcagtct ccacaacacc aacagcaaat ggggcaggtt ttacagcagc
                                                                         480
 agaatataca acaaggatca attaattcac cctccaccca aactttcatg cagactaatg
                                                                         540
 agogaggoag gtaggoodto ottoattigt tootgatica coatcaatco otqtiqqaaq
                                                                         600
 cccaaatttt tcttctgtga agcagggaca tggaaatctt tctgggacca gcttccagca
                                                                         660
 gtccccagtg aggccttctt ttacacctgc tttaccagca gcacctccag tagctaatag
                                                                         720
 cagtotocca tgtggccaag attotactat aacccatgga cacagttato cgggatcaac
                                                                         780
 ccaatcgctc attcagttgt attctgatat aatcccagag gaaaaagggn aaaaaaaara
                                                                         840
 amaaraaara araaaggaga tgatgatgca gaattccacc aaggctcc
                                                                         888
<210> 242
<211> 1811
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (4)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (16)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1810)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1811)
<223> n equals a,t,g, or c
<400> 242
engneagtae eggtengatt eeegggtega eccaegegte egetgeatte eagggeettt
                                                                          60
cagtggcttt cattctgaag ttcctggata acatgttcca tgtcttgatg gcccaggtta
                                                                         120
                                                                         180
ccastgtcat tatcacaaca gtgtctgtcc tggtctttga cttcaggccc tccctggaat
ttttcttgga agccscatca gtcstyctct ctatatttat ttataatgcc agcaagcctc
                                                                         240
aagttccgga atacgcacct aggcaagaaa ggatccgaga tctaagtggc aatctttggg
                                                                         300
agcgttccag tggggatgga gaagaactag aaagacttac caaacccaag agtgatgagt
                                                                         360
cagatgaaga tactttctaa ctggtaccca catagtttgc agctctcttg aaccttattt
                                                                         420
tcacattttc agtgtttgta atatttatct tttcactttg ataaaccaga aatgtttcta
aatoctaata ttotttgoat atatotagot actocotaaa tggttocato caaggottag
                                                                         540
agtacccaaa ggctaagaaa ttctaaagaa ctgatacagg agtaacaata tgaagaattc
                                                                         600
attaatatct cagtacttga taaatcagaa agttatatgt gcagattatt ttccttggcc
                                                                         660
ttcaagcttc caaaaaactt gtaataatca tgttagctat agcttgtata tacacataga
                                                                         720
gatcaatttg ccaaatattc acaatcatgt agttctagtt tacatgccaa agtcttccct
                                                                         780
ttttaacatt ataaaagcta ggttgtctct tgaattttga ggccctagag atagtcattt
                                                                         840
```

tgcaagtaaa gagcaacggg accettteta aaaacgttgg ttgaaggace taaatacetg

```
gccataccat agatttggga tgatgtagtc tgtgctaaat attttgctga agaagcagtt
                                                                     960
 totcagacac aacatotcag aattttaatt tttagaaatt catgggaaat tggatttttg
                                                                    1020
 taataatctt ttgatgtttt aaacattggt tccctagtca ccatagttac cacttgtatt
                                                                    1080
 ttaagtcatt taaacaagcc acggtggggc ttttttctcc tcagtttgag gagaaaaatc
                                                                    1140
 1200
 agttactaat tcaagctgtg actattgtat atctttccaa gagttgaaat gctggcttca
                                                                    1260
 gaatcatacc agattgtcag tgaagctgat gcctaggaac ttttaaaggg atcctttcaa
                                                                    1320
 aaggatcact tagcaaacac atgttgactt ttaactgatg tatgaatatt aatactctaa
                                                                    1380
 aaatagaaag accagtaata tataagtcac tttacagtgc tacttcacac ttaaaagtgc
                                                                    1440
 atggtatttt tcatggtatt ttgcatgcag ccagttaact ctcgtagata gagaagtcag
                                                                    1500
 gtgatagatg atattaaaaa ttagcaaaca aaagtgactt gctcagggtc atgcagctgg
                                                                    1560
 gtgatgatag aagagtgggc tttaactggc aggcctgtat gtttacagac taccatactg
                                                                    1620
 taaatatgag ctttatggtg tcattctcag aaacttatac atttctgctc tcctttctcc
                                                                    1680
 taagtttcat gcagatgaat ataaggtaat atactattat ataattcatt tgtgatatcc
                                                                    1740
 acaataatat gactggcaag aattggtgga aatttgtaat taaaataatt attaaaccta
                                                                    1800
                                                                    1811
 aaaaaaaan n
<210> 243
<211> 2271
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (553)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2267)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2269)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2271)
<223> n equals a,t,g, or c
<400> 243
ctgacctcat ggcgtagagc ctagcaacag cgcaggctcc cagccgagtc cgttatggcc
                                                                     60
                                                                     120
gctgccgtcc cgaagaggat gagggggcca gcacaagcga aactgctgcc cgggtcggcc
                                                                     180
atccaagece ttgtggggtt ggegeggeeg etggtettgg egeteetget tgtgteegee
                                                                     240
gctctatcca gtgttgtatc acggactgat tcaccgagcc caaccgtact caactcacat
300
                                                                     360
caaatcagca ccaccctccc tcccacgacg agtaccaaga aaagtggagg agcatctgtg
gtccctcatc cctcgcctac tcctctgtct caagaggaag ctgataacaa tgaagatcct
                                                                    420
                                                                    480
agtatagagg aggaggatct tctcatgctg aacagttctc catccacagc caaagacact
                                                                    540
ctagacaatg gcgattatgg agaaccagac tatgactgga ccacgggccc cagggacgac
gacgagtctg atrigacacct tggaagaaaa caggggttac atggaaattg aacagtcagt
                                                                    600
                                                                    660
gaaatctttt aagatgccat cctcaaatat agaagaggaa gacagccatt tctttttca
tottattatt titigottitt goattgotgi igittacatt acatatoaca acaaaaggaa
                                                                    720
                                                                    780
gatttttctt ctggttcaaa gcaggaaatg gcgtgatggc ctttgttcca aaacagtgga
                                                                    840
ataccatcgc ctagatcaga atgttaatga ggcaatgcct tctttgaaga ttaccaatga
```

promise space a

900

```
ttatattttt taaagcactg tgatttgaat ttgcttatgt aattttattt gcttgacttt
 ttatatgata ttgtgcaaat gtttgccata ggcaattggt acttaaatga gaggtgagtc
                                                                        960
                                                                       1020
 tototititgo citiggigoti tggaaattaa atgicacaaa cgagtatata attititato
 tgtactttta gagctgagtt taatcaggtg tccaaaatgt gagttaaaca ttaccttata
                                                                       1080
 tttacactgt tagtttttat tgttttagat ttattatgct tcttctggaa gtattagtga
                                                                       1140
 tgctactitt aaaagatccc aaacttgtaa ctaaattctg acatatctgt tactgctgac
                                                                       1200
 teacatteat teteegeeat teaaataeta tittitatee acattititi tigiteecaa
                                                                       1260
 actgtaatgt acaaggatat gtgtgataat gctttggatt tgagtaatat tittittet
                                                                       1320
 tccaagaaaa ctgctttgga tatttttaga taatttaaac ataatttagg ataatgatat
                                                                       1380
 tgctcaatct gaccacaatt ttaggtaaaa cattaaatgt gtcaagaaat cttggcaaca
                                                                       1440
 gagactetge agettgeagt ggacatagat aaaatgttae agagataeta tttttttggt
                                                                       1500
 tggaattact atattaaatt tagaagcaga aactggtaaa atgttaaata catgtacaat
                                                                       1560
 tgcttttagt tagcaattga ttgtagcatg ggttcctcca aggtttcaag caatgggcag
                                                                       1620
 agtttaaaat tatatcagat tcgtttactt cgtttattat tttacagtaa atttgaataa
                                                                       1680
 atcttagggg tcattatcac ttaaataata ctgtacctag gtctttcaaa ttaaaattat
                                                                       1740
 acctgaatga agttgtttgt atacataaag gatatttgtg tacaattacc ttttttcccc
                                                                       1800
 cacacttgtt ttctttgttt ttgtttttta tggcaactgg aaagtattta ctatgggatt
                                                                       1860
 catttatgtc tgtctttcta tcataaagaa ttgatcaata tgtaaatatg tgatttgaac
                                                                       1920
 catggttgac ttacaagtgt cactacagct ttttagaaaa catagcccta atatatgtta
                                                                       1980
 agcaggaccc gggtgagcca gtgggcttgc gctttatgta gagctggaag aaggccgtcc
                                                                       2040
 atcctgtctc ttgggcggac agtgtacttt cctaataggg aagggaagca caatggaaat
                                                                       2100
 acccctgaac cgttttattg cagtaatttt tttcatatct gaaactatta tttaatattt
                                                                       2160
                                                                       2220
. tgaataagat tttaaaaaat aaatggcaaa gatataaatc taaaaaaaaa aaaaaaaaa
 aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaanana n
                                                                       2271
<210> 244
<211> 2500
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (2459)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2473)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2475)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (2478)
<223> n equals a,t,g, or c
<400> 244
tccaagctac gccactcggg ctggggcgtt gggagcggga gtgcagagcg tggtcgtggc
                                                                        120
ggcggcggtg agaagagcga ggcgkaggag ggggtgccat ggccgggcag cagttccagt
                                                                        180
acgatgacag tgggaacacc ttcttctact tcctcacctc cttcgtgggg ctcatcgtga
                                                                        240
teceggegae atactacete tggeeeegag ateagaatge egageaaatt egattaaaga
atatcagaaa agtatatgga aggtgtatgt ggtacgttta cggttattaa aaccccagcc
                                                                        300
```

aaatattatt cctacagtaa agaaaatagt tctgcttgca ggatgggcat tgttcttatt

```
ccttgcatat aaagtttcca aaacagaccg agaataccaa gaatacaatc cttatgaagt
                                                                        420
attaaatttg gatcctggag ccacagtagc agaaattaaa aaacaatatc gtttgctgtc
                                                                        480
                                                                        540
acttaaatat catccagata aaggaggtga tgaggttatg ttcatgagga tagcaaaagc
ttatgctgct ttaacggatg aagagtcccg gaaaaattgg gaagaatttg gaaatccaga
                                                                        600
tgggcctcaa gccacaagct ttggaattgc cctgccagct tggatagttg accagaaaaa
                                                                        660
ttcaattctg gttttacttg tatatggatt ggcatttatg gttatccttc cagttgttgt
                                                                        720
                                                                        780
gggctcttgg tggtatcgct caatacgcta tagtggagac cagattctaa tacgsacaac
acagatitat acatactitg titataaaac ccgaaatatg gatatgaaac gictiatcat
                                                                        840
ggttttggst ggagcttctg aatttgatcc tcagtataat aaagatgcca caagcagacc
                                                                        900
                                                                        960
aacggataat attctaatac cacagctaat cagagaaatt ggcagcatta atttaaagaa
gaatgagcct ccacttacct gcccatatag cctgaaggcc agagttcttt tactgtctca
                                                                       1020
tcttgctaga atgaaaattc ctgagaccct tgaagaagat cagcaattca tgctaaaaaa
                                                                       1080
gtgtcctgcc ctacttcaag aaatggttaa tgtaatctgc caactaatag taatggcccg
                                                                       1140
gaaccgtgaa gaaaqggaqt ttcqtqctcc aactttqqca tccctaqaaa actqcatqaa .
                                                                       1200
gctttctcag atggccgttc agggacttca gcaatttaag tctccccttc tgcagctccc
                                                                       1260
                                                                       1320
tcatattgaa gaggacaatc ttagacgggt ttctaatcat aagaagtata aaattaaaac
tatccaggat ttggtgagtt taaaagaatc agatcgtcac actctactgc acttccttga
                                                                       1380
agatgaaaaa tatgaagagg ttatggctgt ccttgggagt tttccatatg tgaccatgga
                                                                       1440
tataaaatca caggtgttag atgatgaaga tagcaacaac atcacagtag gatccttagt
                                                                       1500
tacagtgttg gttaagttga caaggcaaac aatggctgaa gtatttgaaa aggagcagtc
                                                                       1560
catctgtgct gcagaggaac agccagcaga agatgggcag ggtgaaacta acaagaacag
                                                                       1620
gacaaaagga ggatggcaac agaagagtaa aggacccaag aaaactgcta aatcaaaaaa
                                                                       1680
aaagaaacct ttaaaaaaaaa aacctacacc tgtgctatta ccacagtcaa agcaacagaa
                                                                      1740
acaaaagcag gcaaatggag togttgggaa tgaagctgca gtaaaggaag atgaagaaga
                                                                      1800
                                                                       1860
agtttcagat aagggcagtg attctgaaga agaagaaacc aatagagatt cccaaagtga
gaaagatgat ggtagtgaca gagactctga tagagagcaa gatgaaaaac aaaacaaaga
                                                                      1920
                                                                      1980
tgatgaagca gagtggcaag aattacaaca aagcatacag cgaaaagaga gagctctatt
                                                                      2040
ggaaaccaaa tcaaaaataa cacatcctgt gtatagcctt tactttcctg aggaaaaaca
                                                                      2100 .
agaatggtgg tggctttaca ttgcagatag gaaggagcag acattaatat ccatgccata
tcatgtgtgt acgctgaaag atacagagga ggtagagctg aagtttcctg caccaggcaa
                                                                      2160
gcctggaaat tatcagtata ctgtqtttct gagatcagac tcctatatgg gtttggatca
                                                                      2220
gattaaacca ttggaagttk ggaagttcat gaggctgaag cctgtgccag aaaatcaccc
                                                                      2280
acagtgggat acagcaatag agggggatga agaccaggag gacagtgagg gctttgaaga
                                                                      2340
                                                                      2400
tagctttgag ggaggaagag ggagggagga aggaaggtgg tggacttaag gcagttactc
                                                                      2460
tggaatggga cccacagtgt tttgcaccat attttggcaa ttttttttgc ccgtttttng
gaagtgtttt contnaanco caggaaccat tacagaaccg
                                                                      2500
```

```
<210> 245
<211> 1338
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (133)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (867)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (1338)
<223> n equals a,t,g, or c
```

<220> <221> SITE <222> (20)

```
<400> 245
                                                                          60
 cttccggttc tccgggcage tgccactgct gtagcttctg ccacctgcca cgaccgggce
                                                                         120
 totocotggc gtttggtcac ctctgcttca ttctccaccg cgcctatggt ccctcttgga
                                                                         180
 gccagcgtgg cgngcctggc ggctcccggg tggtgagaga gcggtccggg aacgatgaag
 gcctcgcagt gctgctgctg tctcagccac ctcttggctt ccgtcctcct cctgctgttg
                                                                         240
 ctgcctgaac taagcgggyc cctggmagtc ctgctgcagg cagccgaggc cgcgccaggt
                                                                         300
 Yttgggcctc ctgaccctag accaggacat taccgccgct gccaccgggc cctwacccct
                                                                         360
 gcccagcagc cgggccgtgg tctggctgaa gctgcggggg ccgcggggct ccgagggagg
                                                                         420
 caatggcagc aaccctgtgg ccgggcttga gacggacgat cacggaggga aggccgggga
                                                                         480
 argeteggtg ggtggeggee ttgetgtgag ceceaaceet ggegacaage ceatgaceea
                                                                         540
 gegggeeetg acceptettga tegetegetgag eggegetg etegetetaet tegetegeteag
                                                                         600
 gacggtcagg atgagaagaa gaaaccgaaa gactaggaga tatggagttt tggacactaa
                                                                        660
 catagaaaat atggaattga cacctttaga acaggatgat gaggatgatg acaacacgtt
                                                                         720
 gtttgatgcc aatcatcctc gaagataaga atgtgccttt tgatgaaaga actttatctt
                                                                         780
 tctacaatga agagtggaat ttctatgttt aaggaataag aagccactat atcaatgttg
                                                                         840
 ggggggtatt taagttacat atatttnaac aacctttaat ttgctgttgc aataaatacc
                                                                         900
 gtateetttt attatatett tatatgtata gaagtaetet gttaatggge teagagatgt
                                                                         960
 tggggataaa gtatactgta ataatttatc tgtttgaaaa ttactataaa acggtgtttt
                                                                        1020
 ctgrtcggtt tttgtttcct gcttaccata tgattgtaaa ttgttttatg tattaatcag
                                                                        1080
 ttaatgctaa ttatttttgc tgatgtcata tgttaaagag ctataaattc caacaaccaa
                                                                        1140
 ctggtgtgta aaaataattt aaaatyteet ttactgaaag gtattteeca tttttgtggg
                                                                        1200
 gaaaagaagc caaatttatt actttgtgtt ggggttttta aaatattaag aaatgtctaa
                                                                        1260
                                                                        1320
 gttattgttt gcaaaacaat aaatatgatt ttaaattctc ttaaaaaaaaa aaaaaaaaac
                                                                        1338
 cccggggggg ggcccggn
<210> 246
<211> 654
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (651)
<223> n equals a,t,g, or c
<400> 246
                                                                          60
 gaatteggea egaggeaget tgtgetttaa aggaggtgtt caaagcatgt etgageagag
                                                                         120
 acttttgggc tctgttttaa ttaatacttt aaaataattc atatttaaaa tatcaratgt
 ttccataaag aggaggatgt ttaaatgcct ccagactaca ttccttttta ttscttgatt
                                                                         180
 ttacctggga gtccaaagtt caattcccat aaagcaagcg ttttatttgt cactttcaat
                                                                         240
 atacatccga ttgccatgct taagatgcaa tatgggctgc ggaaataggt taacccacag
                                                                         300
                                                                         360
 gctcccaggg cccagtgtag aaggtgagag attcgtgtaa aatgattcaa ataaaaggaa
                                                                         420
 gaccetggee gggtgeegta reteaegeet gtaateeeag caetttggga ggeegaageg
                                                                         480
 agtggatgac gaggttagga gttggagacc agcctggcca acatcgtgaa accccgtctc
 tactaaaaat acaaaaatta gccgggcatg gtggcaggca cctgtaatcc tagctagttg
                                                                         540
                                                                         600
 ggaggctgag gcaggagaat cgtttgaatc tgggagttgg aggttgtcag tgagctgaga
 tegegecaca geactecage etgggtgaca gggtgagaet etgteteaaa naga
                                                                         654
<210> 247
<211> 1146
<212> DNA
<213> Homo sapiens
```

<221> SITE <222> (1288)

```
<223> n equals a,t,q, or c
<220>
<221> SITE
<222> (35)
<223> n equals a,t,g, or c
<220>
<221> SITE
. <222> (36)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (37)
<223> n equals a,t,g, or c
<400> 247
                                                                           60
 aaaaaaaacc caggggaacn ttgggggccg ctttnnnttc cccctccagg ccattgggga
                                                                          120
 attetteaag ttaateetge tttgetettg gecaacaggg ettgtagggg ggagagacee
 aggatcatca aggggttcga gtgcaagcct cactcccagc cctggcaggc agccctgttc
                                                                          180
                                                                          240
 gagaagacge ggctactctg tggggcgacg ctcatcgccc ccagatggct cctgacagca
                                                                          300
 gcccactgcc tcaagccccg ctacatagtt cacctggggc agcacaacct ccagaaggag
                                                                          360
 gagggetgtg ageagaceeg gaeageeact gagteettee eecaceeegg etteaacaac
                                                                          420
 agecteccea acaaagacca eegcaatgae ateatgetgg tgaagatgge ategecagte
                                                                          480
 tocateacet gggetgtgeg acceetcace etetecteae getgtgteae tgetggeaee
 agetgyetca tttccggetg gggcagmacg tccagecece agttacgeet geetcacace
                                                                          540
 ttgsgatgcg ccaacatcac catcattgag caccagaagt gtgagaacgc ctaccccggc
                                                                          600
 aacatcacag acaccatggt gtgtgccagc gtgcaggaag ggggcaagga ctcctgccag
                                                                          660
                                                                          720
 ggtgactccg ggggccctct ggtctgtaac cagtctcttc aaggcattat ctcctggggc
                                                                         780
 caggatccgt gtgcgatcac ccgaaagcct ggtgtctaca cgaaagtctg caaatatgtg
 gactggatcc aggagacgat gaagaacaat tagactggac ccacccacca cagcccatca
                                                                          840
 ccctccattt ccacttggtg tttggttcct gttcactctg ttaataagaa accctaagcc.
                                                                         900
 aagaccetet aegaacatte tttgggeete etggaetaca ggagatgetg teaettaata
 atcaacctgg ggttcgaaat cagtgagacc tggattcaaa ttctgccttg aaatattgtg
                                                                         1020
                                                                         1080
 actotyggaa tyacaacaco tygtttytto totyttytat coccaycoco aaagacagot
 cctggccata tatcaaggtt tcaataaata tttgctaaat gaaaaaraaa aaaaaaaaaa
                                                                         1140
                                                                         1146
 actcga
<210> 248
<211> 1443
<212> DNA
<213> Homo sapiens
<220>
<221> SITE
<222> (776)
<223> n equals a,t,g, or c
<220>
<221> SITE
<222> (907)
<223> n equals a,t,g, or c
<220>
```

```
<223> n equals a,t,q, or c
<400> 248
 ataaactgaa ataggtcatg caaatataaa atattatttt taaattattt gtcataagaa
                                                                          60
 acgatggtgg ccatattttg ctttaataat ggaaaaaatg tggttagcat tctktggaag
                                                                         120
 gtggtcatca gatagtagac attttctagg atttatttct acctgcatat gtggaaatgt
                                                                         180
 gtactacttt agatttatwt aatggcaget aactcagagg catcaaaatg tgctaatggt
                                                                         240
 gtaatatggc ctttgtcttg ctgtyctgtt ttgtargcct tcaatcaagc argggcaggg
                                                                         300
 cogtacagtg aactigicot tigscagacg coagogicitg cocotgacco ogiotocact
                                                                         360
 ctctgtgtcc tggaggagga gccccttgat gcytaccctg attcaccttc tgcgtgcctt
                                                                         420
 gtactgaact gggaagagcc gtgcaataac ggatctgaaa tccttgctta caccattgat
                                                                         480
 ctaggagaca ctagcattac cgtgggcaac accaccatgc atgttatgaa agatctcctt
                                                                         540
 ccagaaacca cctaccggtg agtgcaaggg agtagaaatc tgcatcagca catcagcact
                                                                         600
 tggggatcta agtaaacctc tcggggaaaa tgaccaagtg gatgtcatct cccagctgtt
                                                                         660
                                                                         720
 tctaagagcc cagatgtcca gagtattgtc tcaccttgat ccctcaggcc agaagacctg
 tgaaaaagcc acactggttc agggactcac tggacggttt tgtgtccact ytaacntgca
                                                                         780
 cogtototac cocagagtgg actoaratec teaagteate etetgaacat tgrrgteaga
                                                                         840
 aattataaaa gggctttggc aatatgttag cccaagaatt tggcttcttc cagaaattgt
 gccgacntta acagtggctt aaatgatggt aaaactttta agatttctaa aaggrtggca
 ttggagatac gttgactttt attaaacmac ctatagttgt ttaatgaytt ctaaaaaaaat
                                                                        1020
 atctggagct caggggttca actgagggaa cacatgttga gratcattgt ttactaatta
 aatgccaggt aacccgttga aattatcaaa aacatcttcc acgtaccaga aagcacctca
                                                                        1140
 gaggatagti cigitatgga gaagatgaaa tggittagta gigtaggaac taiggaaagg
                                                                        1200
 tgagcttaga tttggatagt aaaacctcaa gaccctattt aaaaagtatt ttatgaatgc
                                                                        1260
 agcataaata atttaattca gtgttaanat gccaaggcta gtatattgag ctgaatgtga
                                                                        1320
 aaagaaactc acattgggag aatgccacct tttccttata agatagcttt gaagatacca
 ttttagacag atggaaattg aatagcttta gaaaaggcaa atgtttgatc ttggggaaaa
                                                                        1440
                                                                        1443
 aaa
<210> 249
<211> 31
<212> PRT
<213> Homo sapiens
~220>°
<221> SITE
<222> (31)
<223> Xaa equals stop translation
<400> 249
Met Leu Ser Thr Gly Ile Glu Val Ala Arg Pro Pro Ala Thr Leu Leu
Gly Leu Met Phe Val Leu Thr Gly Met Pro Arg Gly Leu Arg Xaa
             20
                                 25
<210> 250
<211> 116
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (36)
<223> Kaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (78)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (116)
<223> Xaa equals stop translation
<400> 250
Met Asn Val Val Ile Val Ile Leu Phe Ser Phe Asp Ser Val Gly
                 5 -
Thr Met Phe Ser Cys Asn Arg Ile Pro Lys Ile Thr Val Leu Asn Lys
                                25
Leu Lys Phe Xaa Cys Glu Val Leu Leu Arg Ile Gln Thr Ile Gln Gly
                           40.
Phe Tyr Arg Cys Thr Arg Ile Ser Arg Tyr Lys Gly Ile Phe Pro Asp
Phe Cys Gln Ser Gln Cys Met Gly Cys Asn Pro Glu Ser Xaa Met Ala
Val Pro Ala Leu Val Thr Pro Ile Leu Ala His Arg Lys Lys Glu Lys
            . 85
                                   90
Gly Met Cys Leu Phe Thr Leu Ile Ile Ala Pro Thr Arg Cys Thr His
                              105
                                               110
Tyr Phe Cys Xaa
      115
<210> 251
<211> 103
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (103)
<223> Xaa equals stop translation
<400> 251
Met Ser Ser Ala Lys Ile Val Arg Gln Arg Gly Ala Val Pro Thr Tyr
Tyr Thr Thr Glu Ala Gly Glu Ile Ile Phe Leu Val Leu Asn Trp Ser
            20
                                25
Leu Ser Ile Leu His Ile Val Asp Val Leu Cys Ser Lys Pro Glu Lys
                            40
Ser Val Thr Glu Asp Ala Ala Ser Gly Leu Ser Gln Arg Met Thr Ala
                                           60
```

<400> 253

```
Leu Val Trp Arg Lys Gly Pro Asp Gly Gly Ser Arg Lys Pro Ile Leu
                    70 -
                                         75
 Leu Leu Phe Phe Leu Pro Leu Ile Leu Cys Phe His Ser Phe Ile
                 85
                                    90 .
 His Ser Ser Asn Ile Cys Xaa
            100
 <210> 252
 <211> 42
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
 <222> (22)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Met Ile Leu Phe Pro Gln Xaa Ala Leu Arg Leu Gly Xaa Trp Pro Arg
                                     10
 Thr Trp Ser Ile Leu Xaa Lys Tyr Ser Val Asn Phe Phe Ser Ala Tyr
                                 25
 Ser Pro Met Gly Ala Val Gly Thr Glu Phe
     . 35
 <210> 253
 <211> 37
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (32)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (37)
 <223> Xaa equals stop translation
```

Met Ile Ile Leu Leu Phe Met Leu Leu Asn Asn Val Val Leu Val , 5 1 Gln Glu Asp Asn Cys Gln Arg Lys Asn Thr Val Gln Glu Arg Arg Xaa 25 Trp Ser Gln Trp Xaa 35 <210> 254 <211> 128 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (4) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (12) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (128) <223> Xaa equals stop translation <400> 254 Met Ala Ala Xaa Pro Pro Gly Cys Thr Pro Pro Xaa Leu Leu Asp Ile Ser Trp Leu Thr Glu Ser Leu Gly Ala Gly Gln Pro Val Pro Val Glu 25 Cys Arg His Arg Leu Glu Val Ala Gly Pro Arg Lys Gly Pro Leu Ser 40

Pro Ala Trp Met Pro Ala Tyr Ala Cys Gln Arg Pro Thr Pro Leu Thr

His His Asn Thr Gly Leu Ser Glu Leu Leu Glu His Gly Val Cys Glu 70

Glu Val Glu Arg Val Arg Arg Ser Glu Arg Tyr Gln Thr Met Lys Val 90

Arg Arg Ala Gly Leu Gly Pro Thr Pro Gly Met Ser Cys Pro Gly Asn 105

Asp Asn Thr Val His Thr Met His Gly Glu Ala Asn Arg Gly Ser Xaa 120

```
<210> 255
<211> 67
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (6.7)
<223> Xaa equals stop translation
 <400> 255
Met Ser Ile Leu Cys Cys Pro Xaa Leu Cys Leu Phe Phe Ser Phe Cys
 Ile Ser Ser Gly Ser Cys Pro Phe Ser His Val Ser Gln Leu Ser Phe
 Ile Ala Thr Phe Ser Gln Ser Ser Pro Val Leu Leu Val Pro Ala Tyr
                             40
 Asn Thr Tyr Leu Ser Phe Leu Ala Phe Leu Asp Cys Ala Ser Leu Thr
                                             60
                         55
 Ser Thr Xaa
. 65
<210> 256
 <211> 69
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (69)
<223> Xaa equals stop translation
- <400> 256
 Met Ser Thr Phe Gln Leu Leu Leu Leu Ile Leu Ala Gln Ser Thr Tyr
                                      10
 Lys Ile Lys Ser Lys Pro Leu His Met Thr Asn His Thr Leu Leu Asn
                                 25
 Ser Pro Gly Leu Asn Pro Ser Ser Pro Thr Leu Asn Phe Lys Thr Gln
                             40
 Gln His Glu Ser Val Ser Tyr Ala Cys Cys His Met Arg Ser Leu His
                                             60
                          55
 His Ala Phe Ala Xaa
```

```
<210> 257
<211> 44
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (.37)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals stop translation
<400> 257
Met Val Ser Val Val Leu Ile Phe Ser Phe Leu Ser Leu Thr Ile Ser
                                    10
Thr Thr Ala Ser Ala Tyr Asn Gly Asn Asp Thr Gln Gly Trp Asn Asp
                                 25
Lys Phe His Xaa Xaa Ser Val Lys Thr Gln Thr Xaa
                             40
         35
<210> 258
<211> 51
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (51)
<223> Xaa equals stop translation
<400> 258
Met Ile Ser Asp Ala Gly Ala Gly Phe Gly Val Phe Leu Leu Val Pro
Arg Ala Gly His Cys Trp Gly Ala Gly Lys Pro Leu Pro Ser Cys Pro
             20
Ser Val Ala Ser Ile Pro Ser Trp Val Leu Pro Ser Phe Leu Glu Arg
                              40
Gly Arg Xaa
     50
<210> 259
```

```
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals stop translation
<400> 259
Met Val Gln Thr Ile Gln Asp Phe Leu Ser Leu Phe Ser Thr Pro Ile
                       10
1 : 5
Phe Leu Leu Leu Met Phe Glu Thr Leu Ser Leu Ala Pro Ala Trp
Leu Lys Pro Leu Arg Val Thr Ser His Ser Xaa
 35
                         40
<210> 260
<211> 61
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (61)
 <223> Xaa equals stop translation
 <400> 260
 Met Ile Leu Met Pro Gly Leu Gly Thr Ser Arg Gln Arg Ser Val Pro
                             10
 Phe Val Pro Thr Leu Asn Ala Ser Thr Pro Gly Ala Met Thr Gly Pro
           20 25
 Thr Ala Thr Leu Thr Ser Cys Gln Trp Thr Thr Ala Cys Arg Val Ser
         35 40 ...
 Trp Ala Asn Gly Trp Thr Ser Leu Arg Thr Phe Arg Xaa
                      55
 <210> 261
 <211> 36
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (36)
 <223> Xaa equals stop translation
 <400> 261
 Met Ser His His Ala Gln Pro Arg Phe Leu Leu Ile Thr Met Leu Leu
                        10
                 5
```

```
Gln Glu Ala Lys Pro Val Ser Asn Ile Pro His Leu Leu Glu Ser Trp
Tyr Phe Gly Xaa
        35
<210> 262
<211> 38
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (38)
<223> Xaa equals stop translation
Met Asn Ser Leu Phe Trp Met Ile Leu Leu Pro Val Ser Gln Asp Gln
Val Val Glu Gly Leu Gln Gly Gly Phe Ser Gln Ile His Met Arg Ile
                                25
Leu Arg Lys His Leu Xaa
        35
<210> 263
<211> 211
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (211)
<223> Xaa equals stop translation
<400> 263
Met Ser Arg Ser Xaa Asp Val Thr Asn Thr Thr Phe Leu Leu Met Ala .
                5 .
                                    10
Ala Ser Ile Tyr Leu His Asp Gln Asn Pro Asp Ala Ala Leu Arg Ala
Leu His Gln Gly Asp Ser Leu Glu Cys Thr Ala Met Thr Val Gln Ile
                            40
Leu Leu Lys Leu Asp Arg Leu Asp Leu Ala Arg Lys Glu Leu Lys Arg
Met Gln Asp Leu Asp Glu Asp Ala Thr Leu Thr Gln Leu Ala Thr Ala
```

70

Trp Val Ser Leu Ala Thr Gly Gly Glu Lys Leu Gln Asp Ala Tyr Tyr 90 85

Ile Phe Gln Glu Met Ala Asp Lys Cys Ser Pro Thr Leu Leu Leu 105

Asn Gly Gln Ala Ala Cys His Met Ala Gln Gly Arg Trp Glu Ala Ala 120 115

Glu Gly Leu Leu Gln Glu Ala Leu Asp Lys Asp Ser Gly Tyr Pro Glu 135

Thr Leu Val Asn Leu Ile Val Leu Ser Gln His Leu Gly Lys Pro Pro 150

Glu Val Thr Asn Arg Tyr Leu Ser Gln Leu Lys Asp Ala His Arg Ser 170 165

His Pro Phe Ile Lys Glu Tyr Gln Ala Lys Glu Asn Asp Phe Asp Arg 185 180

Leu Val Leu Gln Tyr Ala Pro Ser Ala Glu Ala Gly Pro Glu Leu Ser . 205 195 . . . 200

Gly Pro Xaa 210

<210> 264 <211> 548

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (548)

<223> Xaa equals stop translation

Met Glu Asp Ser Glu Ala Leu Gly Phe Glu His Met Gly Leu Asp Pro 1 . 5

Arg Leu Leu Gln Ala Val Thr Asp Leu Gly Trp Ser Arg Pro Thr Leu 25 20

Ile Gln Glu Lys Ala Ile Pro Leu Ala Leu Glu Gly Lys Asp Leu Leu

Ala Arg Ala Arg Thr Gly Ser Gly Lys Thr Ala Ala Tyr Ala Ile Pro

Met Leu Gln Leu Leu His Arg Lys Ala Thr Gly Pro Val Val Glu 70

Gln Ala Val Arg Gly Leu Val Leu Val Pro Thr Lys Glu Leu Ala Arg 90

Gln Ala Gln Ser Met Ile Gln Gln Leu Ala Thr Tyr Cys Ala Arg Asp 105 Val Arg Val Ala Asn Val Ser Ala Ala Glu Asp Ser Val Ser Gln Arg 120 Ala Val Leu Met Glu Lys Pro Asp Val Val Gly Thr Pro Ser Arg 135 Ile Leu Ser His Leu Gln Gln Asp Ser Leu Lys Leu Arg Asp Ser Leu 150 155 Glu Leu Leu Val Val Asp Glu Ala Asp Leu Leu Phe Ser Phe Gly Phe 170 165 Glu Glu Leu Lys Ser Leu Leu Cys His Leu Pro Arg Ile Tyr Gln 185 Ala Phe Leu Met Ser Ala Thr Phe Asn Glu Asp Val Gln Ala Leu Lys 200 Glu Leu Ile Leu His Asn Pro Val Thr Leu Lys Leu Gln Glu Ser Gln Leu Pro Gly Pro Asp Gln Leu Gln Gln Phe Gln Val Val Cys Glu Thr 230 Glu Glu Asp Lys Phe Leu Leu Leu Tyr Ala Leu Leu Lys Leu Ser Leu 245 250 Ile Arg Gly Lys Ser Leu Leu Phe Val Asn Thr Leu Glu Arg Ser Tyr 260 265 Arg Leu Arg Leu Phe Leu Glu Gln Phe Ser Ile Pro Thr Cys Val Leu 280 Asn Gly Glu Leu Pro Leu Arg Ser Arg Cys His Ile Ile Ser Gln Phe 290 295 300 Ash Gln Gly Phe Tyr Asp Cys Val Ile Ala Thr Asp Ala Glu Val Leu Bly Ala Pro Val Lys Gly Lys Arg Arg Gly Arg Gly Pro Lys Gly Asp Lys Ala Ser Asp Pro Glu Ala Gly Val Ala Arg Gly Ile Asp Phe His His Val Ser Ala Val Leu Asn Phe Asp Leu Pro Pro Thr Pro Glu Ala 360 Lyr Ile His Arg Ala Gly Arg Thr Ala Arg Ala Asn Asn Pro Gly Ile 375 'al Leu Thr Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile 390 395

ilu Glu Leu Leu Ser Gly Glu Asn Arg Gly Pro Ile Leu Leu Pro Tyr

N.O.

405 410 Gln Phe Arg Met Glu Glu Ile Glu Gly Phe Arg Tyr Arg Cys Arg Asp 425 Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu Lys Glu Ile Lys Glu Glu Leu His Ser Glu Lys Leu Lys Thr Tyr Phe 455 Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro Leu 470 475 His Pro Ala Val Lys Pro His Leu Gly His Val Pro Asp Tyr Leu 485 Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg Lys Lys Leu Ser Ser Ser Cys Arg Lys Ala Lys Arg Ala Lys Ser Gln Asn 520 Pro Leu Arg Ser Phe Lys His Lys Gly Lys Lys Phe Arg Pro Thr Ala 535

Lys Pro Ser Xaa 545

<210> 265 <211> 299

<212> PRT

<213> Homo sapiens

<400> 265

Met Thr Thr Val Pro Pro Ser Pro Arg Pro Met Ser Arg Pro Ser Glu

1 10 15

Arg Asn Met Arg Arg Pro Arg Gly Pro Ser Pro Leu Pro Ala Ser Pro 20 25 30

Arg Asn Ser Thr Pro Asp Glu Pro Asp Val His Phe Ser Lys Lys Phe 35 40 45

Leu Asn Val Phe Met Ser Gly Arg Ser Arg Ser Ser Ser Ala Glu Ser 50 55 60

Phe Gly Leu Phe Ser Cys Ile Ile Asn Gly Glu Glu Glu Gln Glu Gln Thr 65 70 75 80

His Arg Ala Ile Phe Arg Phe Val Pro Arg His Glu Asp Glu Leu Glu
85

Leu Glu Val Asp Asp Pro Leu Leu Val Glu Leu Gln Ala Glu Asp Tyr
100 105 110

Trp Tyr Glu Ala Tyr Asn Met Arg Thr Gly Ala Arg Gly Val Phe Pro

 Ala
 Tyr Tyr Ala Ile Glu Val 135
 Thr Lys Glu Pro Glu His Met Ala Ala 130
 Met Ala Ala 140

 Leu 135
 Ala Lys Asn Ser Asp Trp Val Asp Glu 155
 Phe Arg Val Lys Phe Leu 160

 Gly Ser Val Gln Val 165
 Pro Tyr His Lys Gly Asn Asp 170
 Asp Oly Asn Asp Val Leu Cys Ala 175

 Ala Met Gln Lys 180
 Ile Ala Thr Thr Arg Arg Arg Leu Thr Val His 190
 Phe Asn 180

 Pro Pro Ser Ser Cys Val Leu Glu Ile Ser Val Arg Gly Val Lys Ile

Pro Pro Ser Ser Cys Val Leu Glu Ile Ser Val Arg Gly Val Lys 11e

195 200 205

Gly Val Lys Ala Asp Asp Ser Gln Glu Ala Lys Gly Asn Lys Cys Ser 210 215 220

His Phe Phe Gln Leu Lys Asn Ile Ser Phe Cys Gly Tyr His Pro Lys 225 230 235 240

Asn Asn Lys Tyr Phe Gly Phe Ile Thr Lys His Pro Ala Asp His Arg 245 250 255

Phe Ala Cys His Val Phe Val Ser Glu Asp Ser Thr Lys Ala Leu Ala . 260 265 270

Glu Ser Val Gly Arg Ala Phe Gln Gln Phe Tyr Lys Gln Phe Val Glu 275 280 285

Tyr Thr Cys Pro Thr Glu Asp Ile Tyr Leu Glu 290 295

<210> 266

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals stop translation

<400> 266

Leu Leu Tyr Leu Leu Lys Val Xaa Val Ile Phe Val Phe Ser Ser Ser 1 5 10 15

Lys Gly Val Thr Leu Val Ser Met Asn Leu Thr Ser Phe Phe Val Ser 20 25 30

Ser Val Leu Ala Cys Phe Ser Xaa 35 40

<210> 267

<211> 594

<212> PRT

<213> Homo sapiens

<220>

<221> SITE-

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 267

Met Pro Ala Ser Ser Leu Glu Ser Arg Ser Phe Leu Leu Ala Lys Lys
1 5 10 15

Ser Gly Glu Asn Val Ala Lys Phe Ile Ile Asn Ser Tyr Pro Lys Tyr 20 25 30

Phe Gln Lys Asp Ile Ala Glu Pro His Ile Pro Cys Leu Met Pro Glu 35 40 45

Tyr Phe Glu Pro Gln Ile Lys Asp Ile Ser Glu Ala Ala Leu Lys Glu 50 55 60

Arg Ile Glu Leu Arg Lys Val Lys Ala Ser Val Asp Met Phe Asp Gln 65 70 75 80

Leu Leu Gln Ala Gly Thr Thr Val Ser Leu Glu Thr Thr Asn Ser Leu 85 90 95

Leu Asp Xaa Leu Cys Tyr Tyr Gly Asp Gln Glu Pro Ser Thr Asp Tyr 100 105 110

His Phe Gln Gln Thr Gly Gln Ser Glu Ala Leu Glu Glu Glu Asn Asp 115 120 125

Glu Thr Ser Arg Arg Lys Ala Gly His Gln Phe Gly Val Thr Trp Arg 130 140

Ala Lys Asn Asn Ala Glu Arg Ile Phe Ser Leu Met Pro Glu Lys Asn 145 150 155 160

Glu His Ser Tyr Cys Thr Met Ile Arg Gly Met Val Lys His Arg Ala 165 170 175

Tyr Glu Gln Ala Leu Asn Leu Tyr Thr Glu Leu Leu Asn Asn Arg Leu 180 185 190

His Ala Asp Val Tyr Thr Phe Asn Ala Leu Ile Glu Ala Thr Val Cys 195 200 205

Ala Ile Asn Glu Lys Phe Glu Glu Lys Trp Ser Lys Ile Leu Glu Leu 210 215 220

Leu Arg His Met Val Ala Gln Lys Val Lys Pro Asn Leu Gln Thr Phe

	225					230					235					240
	Asn	Thr	Ile	Leu	Lys 245	Cys	Leu	Arg	Arg	Phe 250	His	Val	Phe	Ala	Arg 255	Ser
	Pro	Ala	Leu	Gln 260	Val	Leu	Arg	Glu	Met 265	Lys	Ala	Ile	Gly	Ile 270	Glu	Pro
	Ser	Leu	Ala 275	Thr	Tyr	His	His	Ile 280	Ile	Arg	Leu	Phe	Asp 285	Gln	Pro	Gly
	Asp	Pro 290	Leu	Lys	Arg	Ser	Ser 295	Phe	Ile	Ile	Tyr	Asp 300	Ile	Met	Asn	Glu
	Leu 305	Met	Gly	Lys	Arg	Phe 310	Ser	Pro	Ľys	Asp	Pro 315	Asp	Asp	Asp	Lys	Phe 320
	Phe	Gln ·	Ser	Ala	Met 325	Ser	Ile	Cys	Ser	Ser 330	Leu	Arg	Asp	Leu	Glu 335	Leu
	Ala	Tyr	Gln	Val 340	His	Gly	Leu	Leu	Lys 345	Thr	Gly	qsA	Asn	Trp 350	Lys	Phe
	Ile	Gly	Pro 355	Asp	Gln	His	Arg	Asn 360	Phe	Tyr	Tyr	Ser	Lys 365	Phe	Phe	qsA
	Leu	Ile 370	Cys	Leu	Met	Glu	Gln 375	Ile	Asp	Val	Thr	Leu 380	Lys	Trp	Tyr	Glu
	Asp 385	Leu	Ile	Pro	Ser	Ala 390	Tyr	Phe	Pro	His	Ser 395	Gln	Thr	Met	Ile	His 400
_	Leu	Leu	Gln	Ala	Leu 405	Asp	Val	Ala	Asn	Arg 410	Leu	Glu	Val	Ile	Pro 415	Lys
	Ile	Trp	Lys	Asp 420	Ser	Lys	Glu	Tyr	Gly 425	His	Thr	Phe	Arg	Ser 430	Asp	Leu
	Arg	Glu	Glu 435	Ile	Leu	Met	Leu	Met 440	Ala	Arg	Asp	Lys	His 445	Pro	Pro	Glu
	Leu	Gln 450	Val	Ala	Phe	Ala	Asp 455	Cys	Ala	Ala	Asp	Ile 460	Lys	Ser	Ala	Tyr
	Glu 465	Ser	Gln	Pro	Ile	Arg 470	Gln	Thr	Ala	Gln	Asp 475	Trp	Pro	Ala	Thr	Ser 480
	Leu	Asn	Cys	Ile	Ala 485	Ile	Leu	Phe	Leu	Arg 490	Ala	Gly	Arg	Thr	Gln 495	Glu
	Ala	Trp	Lys	Met 500	Leu	Gly	Leu	Phe	Arg 505	Lys	His	Asn	Lys	Ile 510	Pro	Arg
	Ser	Glu	Leu 51,5	Leu	Asņ	Glu	Leu	Met 520	Asp	Ser	Ala	Lys	Val 525	Ser	Asn	Ser
	Pro	Ser	Gln	Ala	Ile	Glu	Val	Val	Glu	Leu		Ser	Ala	Phe	Ser	Leu

```
Pro Ile Cys Glu Gly Leu Thr Gln Arg Val Met Ser Asp Phe Ala Ile 545 550 550 560
```

Asn Gln Glu Gln Lys Glu Ala Leu Ser Asn Leu Thr Ala Leu Thr Ser 565 570 575

Asp Ser Asp Thr Asp Ser Ser Ser Asp Ser Asp Ser Asp Thr Ser Glu 580 585

Gly Lys

```
<210> 268
```

<220>

<221> SITE

<222> (131)

<223> Kaa equals stop translation

<400> 268

Met Lys Leu Asn Leu Cys Ile Pro Asn Trp Ala Arg Cys Pro Leu Leu 1 5 10 15

Leu Leu Phe Pro Gln Leu Leu Pro Phe Gln Gly Glu Asp Asp Pro 20 25 30

Leu Lys Ala Lys Ala Ala As
n Leu Val Glu Ala Val Pro Trp Gly Ile 35 40 45

Lys Ala Pro Ser Phe Gln Val Thr Cys Leu Val Arg Val Gln Leu Gln 50 60

Ser Cys Thr Pro Ser Arg Pro Ser Thr Leu Leu Ala Thr Ser Gln Ser 65 70 75 80

Pro Gly Arg Ile Ser Cys Tyr Ser Pro Leu Ser His Leu Pro Pro Val 85 90 95

Thr Thr Ser Ile Gln Pro Ser Pro Val Met Val Pro Phe Gln Tyr Gln
100 105 110

Ala Phe Leu Leu Gln Val Lys Glu Pro Ala Ala Gln Thr Leu Leu Gly
115 120 125

Gln Gln Xaa 130

<210> 269

<211> 21

<212> PRT

<211> 131

<212> PRT

<213> Homo sapiens

```
DUDITED I
7
7. E
```

```
<220>
      <221> SITE
      <222> (14)
      <223> Xaa equals any of the naturally occurring L-amino acids
      <220>
      <221> SITE
      <222> (19)
      <223> Xaa equals any of the naturally occurring L-amino acids
      <220>
      <221> SITE
      <222> (21)
  <223> Xaa equals stop translation
      <400> 269
      Met Arg Tyr His Ala Gln Leu Ile Phe Cys Ile Phe Cys Xaa Phe Val
H:
                                           10
      Phe Val Xaa Lys Xaa
                   20
      <210> 270
      <211> 159
      <212> PRT
      <213> Homo sapiens
      <220>
      <221> SITE
     <222> (109)
      <223> Xaa equals any of the naturally occurring L-amino acids
      <220>
      <221> SITE
      <222> (118)
      <223> Xaa equals any of the naturally occurring L-amino acids
      <220>
      <221> SITE
      <222> (122)
      <223> Xaa equals any of the naturally occurring L-amino acids
      <220>
      <221> SITE
      <222> (127)
      <223> Xaa equals any of the naturally occurring L-amino acids
      <400> 270
      Met Thr Gly Thr Tyr Ser Gly Gln Phe Val Met Glu Gly Phe Leu Asn
                                           10
      Leu Lys Trp Ser Arg Phe Ala Arg Val Val Leu Thr Arg Ser Ile Ala
                                       25
      Ile Ile Pro Thr Leu Leu Val Ala Val Phe Gln Asp Val Glu His Leu
```

Thr Gly Met Asn Asp Phe Leu Asn Val Leu Gln Ser Leu Gln Leu Pro 50 55 60

Phe Ala Leu Ile Pro Ile Leu Thr Phe Thr Ser Leu Arg Pro Val Met 65 70 75 80

Ser Asp Phe Ala Asn Gly Leu Gly Trp Arg Ile Ala Gly Gly Ile Trp 85 90 95

Ser Tyr His Leu Phe His His Met Tyr Phe Val Val Xaa Tyr Val Arg 100 105 110

Asp Leu Arg His Val Xaa Leu Tyr Val Xaa Ala Ala Val Val Xaa Arg 115 120 125

Gly Leu Ser Gly Leu Cys Val Leu Leu Gly Leu Ala Met Phe Asp Cys 130 140

Thr Gly His Val Leu Pro Gly Leu Trp Ala Tyr Gly Lys His Leu 145 150 155

<210> 271

<211> 219

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (219)

<223> Xaa equals stop translation

<400> 271

Met His Phe Leu Phe Arg Phe Ile Val Phe Phe Tyr Leu Trp Gly Leu 1 10 15

Phe Thr Ala Gln Arg Gln Lys Lys Glu Glu Ser Thr Glu Glu Val Lys 20 25 30

Ile Glu Val Leu His Arg Pro Glu Asn Cys Ser Lys Thr Ser Lys Lys 35 40 45

Gly Asp Leu Leu Asn Ala His Tyr Asp Gly Tyr Leu Ala Lys Asp Gly 50 60

Ser Lys Phe Tyr Cys Ser Arg Thr Gln Asn Glu Gly His Pro Lys Trp 65 70 75 80

Phe Val Leu Gly Val Gly Gln Val Ile Lys Gly Leu Asp Ile Ala Met 85 90 95

Thr Asp Met Cys Pro Gly Glu Lys Arg Lys Val Val Ile Pro Pro Ser 100 105 110

Phe Ala Tyr Gly Lys Glu Gly Tyr Ala Glu Gly Lys Ile Pro Pro Asp 115 120 125

Ala Thr Leu Ile Phe Glu Ile Glu Leu Tyr Ala Val Thr Lys Gly Pro

<220>

140 130 135 Arg Ser Ile Glu Thr Phe Lys Gln Ile Asp Met Asp Asn Asp Arg Gln 150 145 Leu Ser Lys Ala Glu Ile Asn Leu Tyr Leu Gln Arg Glu Phe Glu Lys 170 Asp Glu Lys Pro Arg Asp Lys Ser Tyr Gln Asp Ala Val Leu Glu Asp . 180 Ile Phe Lys Lys Asn Asp His Asp Gly Asp Gly Phe Ile Ser Pro Lys 200 Glu Tyr Asn Val Tyr Gln His Asp Glu Leu Xaa 215 <210> 272 <211> 50 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (41) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (48) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (50) <223> Xaa equals stop translation <400> 272 Met Trp Val Ile Arg Val Phe Gln Lys Thr Phe Leu Phe Phe Val Leu 10 Phe Trp Ser Val His Cys Ile Ser Asp Lys Phe Gly Cys Leu Trp His Val Cys Met Lys Arg Glu Gly Asp Xaa Asn Cys Leu Ser Phe Ser Xaa 40 Leu Xaa 50 <210> 273 <211> 122 <212> PRT <213> Homo sapiens

- · SITE
- (7)
- . Xaa equals any of the naturally occurring L-amino acids
- > SITE
- > (20)
- > Xaa equals any of the naturally occurring L-amino acids
- > SITE
- > (122)
- > Xaa equals stop translation

Pro Ser Gln Thr Glu Xaa Phe Ala Ala Cys Gly Gly His Ser Leu

Leu Val Xaa Leu Pro Leu Gly Leu Pro Phe Cys Pro Arg Ala Ala 25

Cys Asp Leu Pro Phe Ser Leu Pro Ser Phe Pro Gly Gln Ala Arg - 35

Gly Gly Ala Glu Lys Gln Gly Ala Glu Gly Arg Gly Leu Gln Val 55

Pro Arg Gly Gln Arg Thr Phe Gln Val Ser Arg Thr Ala Pro Ala 75

Pro Arg Ser Arg Gln Pro Arg Pro Pro Ala Ala Leu Pro Ala Leu

Phe Gly Gly Arg Gly Val Ala Lys Gly Arg Phe Leu Cys Phe Trp

Leu Tyr Met Leu Arg Ile Asp Gln Xaa 120 115

- 0> 274
- 1> 88
- 2> PRT
- 3> Homo sapiens
- 0> .
- 1> SITE
- 2> (53)
- 3> Xaa equals any of the naturally occurring L-amino acids
- 0>
- 1> SITE
- 2> (88)
- 3> Xaa equals stop translation

: Thr Ala Phe Cys Ser Leu Leu Leu Gln Ala Gln Ser Leu Leu Pro.

```
Arg Thr Met Ala Ala Pro Gln Asp Ser Leu Arg Pro Gly Glu Glu Asp
                              25
Glu Gly Met Gln Leu Leu Gln Thr Lys Asp Ser Met Ala Lys Gly Ala
        35 40
Arg Pro Gly Ala Xaa Arg Gly Arg Ala Arg Trp Gly Leu Ala Tyr Thr
           55
Leu Leu His Asn Pro Thr Leu Gln Val Phe Arg Lys Thr Ala Leu Leu
Gly Ala Asn Gly Ala Gln Pro Xaa
               85
<210> 275
<211> 26
<212> PRT
<213> Homo sapiens
<220> ,
<221> SITE
<222> (26)
<223> Xaa equals stop translation
<400> 275
Met Ile Gln Val Ser Val Pro Leu Leu Thr Ile Met Ile Phe Leu Leu
                            10
        5
Tyr Leu Gln Ile Gly Pro Gly Lys Leu Xaa
<210> 276
<211> 29
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (29)
<223> Xaa equals stop translation
Met Leu Leu Asp Pro Phe Ile Leu Leu Phe Cys Leu Phe Ser Thr Ala
                                 10
Ala Gln Ser Cys Leu Glu Phe Ile Tyr Ile Gln Phe Xaa
            20
<210> 277
<211> 44
<212> PRT
```

```
<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals stop translation
Met Lys Phe Leu Ser Ile Leu Leu Asp Asp Asn Asn Phe Xaa Leu Met
                  5
                                    10
Leu Met Leu Ala Pro Phe Gly Cys Leu Ala Phe Glu Arg Ser Met Lys
Met Arg Asn Gly Ala Leu Gly Leu Glu Glu Val Xaa
<210> 278
<211> 363
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (307)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (363)
<223> Xaa equals stop translation
<400> 278
Met Arg Thr Leu Phe Asn Leu Leu Trp Leu Ala Leu Ala Cys Ser Pro
Val His Thr Thr Leu Ser Lys Ser Asp Ala Lys Lys Ala Ala Ser Lys
             20
Thr Leu Leu Glu Lys Ser Gln Phe Ser Asp Lys Pro Val Gln Asp Arg
                             40
Gly Leu Val Val Thr Asp Leu Lys Ala Glu Ser Val Val Leu Glu His
                        55
Arg Ser Tyr Cys Ser Ala Lys Ala Arg Asp Arg His Phe Ala Gly Asp
Val Leu Gly Tyr Val Thr Pro Trp Asn Ser His Gly Tyr Asp Val Thr
             . 85
Lys Val Phe Gly Ser Lys Phe Thr Gln Ile Ser Pro Val Trp Leu Gln
                               105
```

Leu Lys Arg Arg Gly Arg Glu Met Phe Glu Val Thr Gly Leu His Asp 115 120 125

Val Asp Gln Gly Trp Met Arg Ala Val Arg Lys His Ala Lys Gly Leu 130 135 140

His Ile Val Pro Arg Leu Leu Phe Glu Asp Trp Thr Tyr Asp Asp Phe 145 150 155 160

Arg Asn Val Leu Asp Ser Glu Asp Glu Ile Glu Glu Leu Ser Lys Thr
165 170 175

Val Val Gln Val Ala Lys Asn Gln His Phe Asp Gly Phe Val Val Glu 180 1:85 190

Val Trp Asn Gln Leu Leu Ser Gln Lys Arg Val Thr Asp Gln Leu Gly
195 200 205

Met Phe Thr His Lys Glu Phe Glu Gln Leu Ala Pro Val Leu Asp Gly 210 220

Phe Ser Leu Met Thr Tyr Asp Tyr Ser Thr Ala His Gln Pro Gly Pro 225 230 235 240

Asn Ala Pro Leu Ser Trp Val Arg Ala Cys Val Gln Val Leu Asp Pro 245 250 255

Lys Ser Lys Trp Arg Ser Lys Ile Leu Leu Gly Leu Asn Phe Tyr Gly
260 265 270

Met Asp Tyr Ala Thr Ser Lys Asp Ala Arg Glu Pro Val Val Gly Ala 275 280 285

Arg Tyr Ile Gln Thr Leu Lys Asp His Arg Pro Arg Met Val Trp Asp 290 295 300

Ser Gln Xaa Ser Glu His Phe Phe Glu Tyr Lys Lys Ser Arg Ser Gly 305 310 315

Arg His Val Val Phe Tyr Pro Thr Leu Lys Ser Leu Gln Val Arg Leu 325 330 335

Glu Leu Ala Arg Glu Leu Gly Val Gly Yal Ser Ile Trp Glu Leu Gly 340 345

Gln Gly Leu Asp Tyr Phe Tyr Asp Leu Leu Xaa 355 360

<210> 279

<211> 128

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (128)

<223> Xaa equals stop translation

Leu Pro Thr Lys Ile Leu Val Lys Pro Asp Arg Thr Phe Glu Ile Lys 10

Ile Gly Gln Pro Thr Val Ser Tyr Phe Leu Lys Ala Ala Ala Gly Ile 25

Glu Lys Gly Ala Arg Gln Thr Gly Lys Glu Val Ala Gly Leu Val Thr 40

Leu Lys His Val Tyr Glu Ile Ala Arg Ile Lys Ala Gln Asp Glu Ala

Phe Ala Leu Gln Asp Val Pro Leu Ser Ser Val Val Arg Ser Ile Ile 70

Gly Ser Ala Arg Ser Leu Gly Ile Arg Val Val Lys Asp Leu Ser Ser

Glu Glu Leu Ala Ala Phe Gln Lys Glu Arg Ala Ile Phe Leu Ala Ala 105 110.

Gln Lys Glu Ala Asp Leu Ala Ala Gln Glu Glu Ala Ala Lys Lys Xaa 125 120 115

<210> 280

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (54)

<223> Xaa equals stop translation

<400> 280

Met Leu Leu Gln Ile His Pro Leu Leu Pro Ser Pro Thr Ile Pro His 10

Ile Leu Leu Phe Leu Tyr Pro Thr Phe Ser Ile Leu Glu His Ser

Cys Ser Tyr Cys Ile Glu Tyr Leu Trp Val Cys Leu Leu Phe Cys Leu 40

Ser Leu Trp Phe Leu Xaa 50

<210> 281

<211> 29

<212> PRT

```
<400> 281
Met Cys Leu Trp Cys Cys Gly Asp Val Cys Ser Gly Leu Ser Ser Leu
                   . 10
Leu Ser Leu Cys Val Cys Cys Val Val Leu Ala Val Cys
<210> 282
<211> 26
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (26)
<223> Xaa equals stop translation
<400> 282
Glu Gly Leu Arg Leu Leu Ser Leu Pro Ala Ala Leu Pro Arg Ser
Cys Cys His Pro Arg Trp Leu Pro Val Xaa
    20
<210> 283
<211> 221
<212> PRT
<213> Homo sapiens
<400> 283
Met Phe His Gly Ile Pro Ala Thr Pro Gly Ile Gly Ala Pro Gly Asn
                                  10
Lys Pro Glu Leu Tyr Glu Glu Val Lys Leu Tyr Lys Asn Ala Arg Glu
Arg Glu Lys Tyr Asp Asn Met Ala Glu Leu Phe Ala Val Val Lys Thr
Met Gln Ala Leu Glu Lys Ala Tyr Ile Lys Asp Cys Val Ser Pro Ser
Glu Tyr Thr Ala Ala Cys Ser Arg Leu Leu Val Gln Tyr Lys Ala Ala
Phe Arg Gln Val Gln Gly Ser Glu Ile Ser Ser Ile Asp Glu Phe Cys
Arg Lys Phe Arg Leu Asp Cys Pro Leu Ala Met Glu Arg Ile Lys Glu
                             105
          100
Asp Arg Pro Ile Thr Ile Lys Asp Asp Lys Gly Asn Leu Asn Arg Cys
       115
                          120
```

Ile Ala Asp Val Val Ser Leu Phe Ile Thr Val Met Asp Lys Leu Arg

130 135 140

Met Glu Thr Met His Arg Met Ser His Leu Pro Pro Asp Phe Glu Gly
165 170 175

Arg Gln Thr Val Ser Gln Trp Leu Gln Thr Leu Ser Gly Met Ser Ala 180 185 190

Ser Asp Glu Leu Asp Asp Ser Gln Val Arg Gln Met Leu Phe Asp Leu 195 200 205

Glu Ser Ala Tyr Asn Ala Phe Asn Arg Phe Leu His Ala 210 215 220

<210> 284

<211> 40

<212> PRT

<213> Homo sapiens

<400> 284

Met Gly Asn Ser Gln Val Pro Gln Ser Ser Asp Phe Ser Ser Ile Leu 1 5 10 15

Leu Thr Thr Ser Leu Gly Thr Tyr Ser Leu Leu Gly Thr Ala Gly 20 25 30

Ala Arg Thr Gly Ser Pro Met Ser 35 40

<210> 285

<211> 49

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (49)

<223> Xaa equals stop translation

<400> 285

Met Gln Ala Pro Phe Xaa His Phe Ser Phe Arg Met Phe Ser Asn Leu

1 5 10 15

```
Tyr Cys Phe Ser Asp Phe Gln Pro Asn Ile Ser Pro Cys Pro Leu Cys
                                25
His Cys Ile Leu Pro Xaa His His His Val Phe Leu Leu Ala Val
                           40
                                              45 ·
Xaa
<210> 286
<211> 52
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (52)
<223> Xaa equals stop translation
<400> 286
Met Lys Leu Val Thr Met Phe Asp Lys Leu Ser Arg Asn Arg Val Ile
Gln Pro Met Gly Met Ser Pro Arg Gly His Leu Thr Ser Leu Gln Asp
           20
Ala Met Cys Glu Thr Met Glu Gln Gln Leu Ser Ser Asp Pro Asp Ser
                           40
Asp Pro Asp Xaa
    50
<210> 287
<211> 32
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (32)
<223> Xaa equals stop translation
<400> 287
Met Ala Val Gly Glu Ala Val Phe Val Pro Leu Gln His Pro Pro Leu
                                   10
```

Leu His Gly Ser Pro Ile Pro Lys Leu Leu Pro Gly Pro Leu Leu Xaa

25 30

<210> 288 <211> 57

20

<212> PRT

```
<213> Homo sapiens
<220>
<221> SITE
<222> (52)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (57)
<223> Xaa equals stop translation
<400> 288
Met Asn Gly Cys His Arg Arg Lys Arg Leu His Leu Cys Lys Thr Ile
                                   10
Tyr Leu Leu Trp Phe Val Phe Ser Phe Leu Leu Ser Asn Glu Val Val
           20
                               25
Ser Ser His Trp His Ile Leu Arg Ala Val Gln Ile Ile Cys Thr Leu
                           40
Phe His Arg Xaa Ile Ser Ala Phe Xaa
  50
                   55
<210> 289
<211> 22
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (22)
<223> Xaa equals stop translation
<400> 289
Met Gly Trp Val Ser Ser Pro His Val Lys Arg Arg Glu Cys Val Leu
                                   10 15
Lys Lys Pro Phe Phe Xaa
            20
<210> 290.
<211> 51
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (51)
<223> Xaa equals stop translation
<400> 290
Met Phe Asn Phe Phe Lys Asn Pro Leu Leu Thr Cys Leu Phe Ile Ser
```

```
Cys Tyr Leu Tyr Leu Ser Leu Leu Val Asn Lys Val Leu Phe Ala Glu
                                25
             20
Glu Gly Leu Cys Cys Thr Tyr Cys Thr Thr Ser Asn Thr Gly Glu Gly
Gly Val Xaa
    50
<210> 291
<211> 98
<212> PRT
<213> Homo sapiens
<400> 291
Met Val Tyr Ile Tyr His Ile Phe Phe Ile His Ser Leu Leu Asp Gly
                                    10
Gln Leu Gly Trp Phe His Ile Phe Ala Ile Val Ser Cys Ala Ala Pro
                                                    30
                                 25
         20
Asp Ile Ile Phe Asn Ser Phe Ala Phe Ser Thr Tyr Ile Ser Lys Ser
                             40
Cys Ser Phe Tyr Leu Gln Asn Val Ser Cys Ile His Ser Ser Leu Ser
         · 55
Ile Phe Asn Leu Phe Gln Cys Pro Ile Ile Ser Cys Met Glu Glu Cys
Asn Asn Trp Leu Thr Gly Leu Phe Leu His Phe Lys Ile Lys Arg Cys
Asp Arg
<210> 292
<211> 66
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (66)
<223> Xaa equals stop translation
<400> 292
Met Leu Cys Thr Ile Leu Thr Val Val Ile Ile Ile Ala Ala Gln Thr
                                    10
```

Thr Arg Thr Thr Gly Ile Pro Lys Asn Ala Pro Gly Pro Ala Pro Leu

30 25 20 Cys Ala Pro Arg Ser Pro Arg Leu Phe Leu Gin Xaa Tyr Arg Gly Pro 40 Asn Gly Arg Pro Ala His Pro Phe Leu Gly Pro Ser Asp Leu Asp Thr 55 60 Ser Xaa 65 <210> 293 <211> 257 <212> PRT <213> Homo sapiens LUUUHABB <220> <221> SITE <222> (75) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE Œ <222> (187) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (229) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (232) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (235) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (236) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (237) <223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (257)

<400> 293

<223> Xaa equals stop translation

Met Leu Gly Ala Lys Pro His Trp Leu Pro Gly Pro Leu His Ser Pro 1 5 10 15

Gly Leu Pro Leu Val Leu Val Leu Leu Ala Leu Gly Ala Gly Trp Ala 20 25 30

Gln Glu Gly Ser Glu Pro Val Leu Leu Glu Gly Glu Cys Leu Val Val
35 40 45

Cys Glu Pro Gly Arg Ala Ala Gly Gly Pro Gly Gly Ala Ala Leu 50 55 60

Gly Glu Ala Pro Pro Gly Arg Val Ala Phe Xaa Ala Val Arg Ser His 65 70 75 80

His His Glu Pro Ala Gly Glu Thr Gly Asn Gly Thr Ser Gly Ala Ile 85 90 95

Tyr Phe Asp Gln Val Leu Val Asn Glu Gly Gly Phe Asp Arg Ala 100 105 110

Ser Gly Ser Phe Val Ala Pro Val Arg Gly Val Tyr Ser Phe Arg Phe 115 120 125

His Val Val Lys Val Tyr Asn Arg Gln Thr Val Gln Val Ser Leu Met 130 135 140

Leu Asn Thr Trp Pro Val Ile Ser Ala Phe Ala Asn Asp Pro Asp Val 145 150 150

Thr Arg Glu Ala Ala Thr Ser Ser Val Leu Leu Pro Leu Asp Pro Gly
165 170 175

Asp Arg Val Ser Leu Arg Leu Arg Gly Xaa Ser Thr Gly Trp Leu 180 185 190

Glu Ile Leu Lys Phe Leu Trp Leu Pro His Leu Pro Ser Leu Lys Asp 195 200 205

Pro Ser Leu Ser Ser Thr Arg Ile Gln Pro Leu Thr Thr Phe Phe Cys 210 215 220

Pro Leu Leu Pro Xaa Lys Gln Xaa Lys Gln Xaa Xaa Xaa Ser Leu Trp 225 230 235 240

Leu Leu Ser His Leu Phe Ala Trp Glu Pro Val Pro Asn Thr Gln Val 245 250 255

Xaa

<210> 294

<211> 103

<212> PRT

<213> Homo sapiens

<220>

```
<221> SITE
<222> (78)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (81)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (103)
<223> Xaa equals stop translation
<400> 294
Met Ala Pro Arg Ala Leu Pro Gly Ser Ala Val Leu Ala Ala Ala Val
Phe Val Gly Gly Ala Val Ser Ser Pro Leu Val Ala Pro Asp Asn Gly
                                 25
Ser Ser Arg Thr Leu His Ser Arg Thr Glu Thr Thr Pro Ser Pro Ser
                             40
Asn Asp Thr Gly Asn Gly His Pro Glu Tyr Ile Ala Tyr Ala Leu Val
                         55
Pro Val Phe Phe Ile Met Gly Leu Phe Gly Val Leu Ile Xaa Pro Xaa
Xaa Xaa Lys Lys Lys Gly Tyr Arg Cys Thr Thr Glu Ala Glu Gln Asp
                 85
Ile Glu Glu Glu Lys Gly Xaa
            100
<210> 295
<211> 33
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (33)
<223> Xaa equals stop translation
<400> 295
```

```
Met Pro Val Thr Leu Ser Ser Leu Gly Phe Trp Val Leu Leu Ser Leu
Leu Phe Pro Trp Arg Thr Asp Gln Gly Cys Gly Pro Ala Thr Cys Tyr
                                25
             20
Xaa
<210> 296
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (43)
<223> Xaa equals stop translation
<400> 296
Met Val Leu Gly Leu Leu Leu Leu Leu Xaa Phe Phe Ser Phe Ser Ser
Ser Pro Ser Pro Ser Ser Ser Leu Leu Leu Ser Ser Phe Phe Phe
                                25
Gln Ser Leu Ala Leu Ser Pro Arg Leu Glu Xaa
                             40
<210> 297
<211> 21
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (21)
<223> Xaa equals stop translation
<400> 297
Glu Trp Leu Val Phe Thr Phe Leu Leu Val Phe Gly Ser Pro Leu Gly
                                 . 10
Lys Gly Pro Leu Xaa
             20
<210> 298
<211> 70
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (70)
<223> Xaa equals stop translation
<400> 298
Met Ile Arg Ala Leu Ser Leu Phe Leu Leu Ile Phe Asp Ala Ala Leu
                                    10
Phe Ser Leu Ser Val Phe Val Phe Ile Gly His Leu Leu Pro Met Pro
                                 25
Lys Gly Thr Gly Leu His Ser Cys Ala Lys His Leu Ile Lys Ser Leu
                            40
Lys Glu Asn Val Leu Pro Leu Met Asn Tyr Pro Asp Cys Lys Leu Lys
                         55
Ile Asn Ile Ser Pro Xaa
                     70
<210> 299
<211> 75
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (75)
<223> Xaa equals stop translation
<400> 299
Met Gly Lys Leu Ile Arg Leu Ser Val Met Val Met Ser Val Arg Arg
                                    10
Leu Phe Ser Ile Tyr Trp Val Leu Ser Thr Val Pro Asp Ala Val Gly
                                 25
Ser Arg Gly Gly Met Glu Glu Glu Cys Ser Arg Gly Leu Cys Cys Val
  . 35
Ala Gly Gln His Lys Gln Ala Lys Gly Lys Arg Gln Ala Trp Asn Lys
Gly Gly Glu Tyr Gln Cys Val Thr Tyr Cys Xaa
                     70
<210> 300
<211> 33
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (33)
```

```
<223> Xaa equals stop translation
<400> 300
Met Pro Ala Leu Val Thr Leu Leu Leu Leu Phe Pro Leu Leu Pro Leu
        5 ·
                                   10
Met Glu Ala Ser Cys His Val Met Arg Cys Pro Met Glu Arg Pro Thr
             20
                               25
Xaa
<210> 301
<211> 17
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
<223> Xaa equals stop translation
<400> 301
Glu Ala Pro Trp Gly Leu Leu Lys Leu Leu Leu Leu Ala Val Phe
Xaa .
<210> 302
<211> 17
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
<223> Xaa equals stop translation
Met Gln Gln Lys Gln Lys Lys Ala Asn Glu Lys Lys Glu Glu Pro Lys
                5
                                   10
Xaa
<210> 303
<211> 111
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
```

35

```
<400> 303
Met Gln Ser Pro Lys Phe Leu Ser Xaa Thr Pro Tyr Leu Phe Gln Thr
                        10
Pro Phe His Leu Ile Ser Leu Pro Cys His Phe Phe Ile Phe Lys Met
                    25
Pro Ile Val Tyr Val Leu Phe Lys Phe Phe Glu Arg Leu Lys Gln Pro
Leu Ser Lys Ile Pro Phe Cys Leu Leu Ala Phe Lys Phe Ser Ile Arg
                   . 55
                                          60
     50
Ala Phe Phe Leu Pro Leu Trp His Ala Ala Leu Trp Leu Ser Phe Val
                    70
Phe Phe Ala Gly Phe Leu His Asp Val Val Val Ser Cys Leu Thr
                                   90
Leu Cys Gly Val Val Ser Cys Ser Phe Ser Ser Pro Arg Cys Leu
                              105
  100
<210> 304
<211> 12
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> Xaa equals stop translation
Met Ala Leu Leu Ile Ser Ser Leu Ile Trp Ser Xaa
 1
<210> 305
<211> 35
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
 <222> (35)
 <223> Xaa equals stop translation
<400> 305
 Met Gln Met Phe Thr Val Ser Leu Leu Leu Ser Leu Leu Leu Arg Ser
                           10
 Thr Asp Gln Asn His Leu Gln Leu Leu Val Gly Arg Glu Asp His Tyr
                              25
Gly Gly Xaa
```

```
<210> 306
 <211> 15
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (15)
 <223> Xaa equals stop translation
 <400> 306.
 Met Ser Glu Ser Ala Cys Ile Leu Asn Asn Gln Lys Glu Leu Xaa
 <210> 307
 <211> 44
<212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (44)
 <223> Xaa equals stop translation
 <400> 307
 Met Asp Leu Asp Arg Val Lys Ala Glu Ala Thr Glu Asp Ile Thr Ser
                                 10
 Gly Val Leu Cys Leu Leu Phe Leu Arg Leu Pro Pro Asn Ser Cys Ile
                                 25
 Phe Pro Ser Ala Val Leu Gly Ser Thr Arg Thr Xaa
         35
 <210> 308
 <211> 137
 <212> PRT
 <213> Homo sapiens
 Met Met Val Val Gly Thr Gly Thr Ser Leu Ala Leu Ser Ser Leu Leu
                   5
   1 .
 Ser Leu Leu Phe Ala Gly Met Gln Met Tyr Ser Arg Gln Leu Ala
                                  25
 Ser Thr Glu Trp Leu Thr Ile Gln Gly Gly Leu Leu Gly Ser Gly Leu
                             40
 Phe Val Phe Ser Leu Thr Ala Phe Asn Asn Leu Glu Asn Leu Val Phe
 Gly Lys Gly Phe Gln Ala Lys Ile Phe Pro Glu Ile Leu Leu Cys Leu
```

75

70

```
Leu Leu Ala Leu Phe Ala Ser Gly Leu Ile His Arg Val Cys Val Thr
                         90
Thr Cys Phe Ile Phe Ser Met Val Gly Leu Tyr Tyr Ile Asn Lys Ile
                             105
Ser Ser Thr Leu Tyr Gln Ala Ala Ala Pro Val Leu Thr Pro Ala Lys
           120
Val Thr Gly Lys Ser Lys Lys Arg Asn
<210> 309
<211> 34
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (34)
<223> Xaa equals stop translation
<400> 309
Met Phe Ile Phe Leu Phe Leu Cys Val Leu Ser Arg Lys Ile Gln Glu
 1 5 , 10
Glu Tyr Tyr Arg Leu Phe Lys Asn Val Pro Cys Cys Phe Gly Cys Leu
            20 25
Arg Xaa
<210> 310
<211> 137
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (137)
<223> Xaa equals stop translation
Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Ala Gly
                        10
Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg Met Arg
Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu Gln Val Ser
        35 .
                          40
Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg Leu Tyr Leu Asp
                      55
```

```
Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg Asp Phe Val Ala Ser
  Pro Pro Cys Trp Lys Val Ala Gln Val Asp Ser Leu Lys Asp Lys Ala
                                      90
  Arg Lys Leu Tyr Thr Ile Met Asn Ser Phe Cys Arg Arg Asp Leu Val
             100
                                 105
  Phe Leu Leu Asp Asp Cys Asn Ala Leu Glu Tyr Pro Ile Pro Val Thr
   . 115
  Thr Val Leu Pro Asp Arg Gln Arg Xaa
                          135
  <210> 311
  <211> 58
  <212> PRT
  <213> Homo sapiens
 <220>
<221> SITE
  <222> (14)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (37)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
 <221> SITE
 ·<222> (58)
  <223> Xaa equals stop translation
  <400> 311
  Met Trp Leu Leu Lys Pro Ser Ala His Ser Pro Val His Xaa Leu Val
  Leu Leu Phe Pro Arg Gly Trp Ser Gln Pro Gly Thr His Lys Arg Gln
  Ile Leu Val Asn Xaa Ala Ser Leu Pro Gly Gly Cys Leu Leu Pro Trp
  Ile Trp Ser Gly Ala Ala Leu Arg Phe Xaa
      50
                          55
<210> 312
  <211> 35
  <212> PRT
  <213> Homo sapiens
 <220>
 <221> SITE
  <222> (35)
```

<223> Xaa equals stop translation

```
<400> 312
 Met Ser Arg Arg Ala Glu Ala Ser Ile Phe Val Leu Pro Lys Thr Leu
                                     10
                 5 ·
 Leu Phe Val Leu Phe Pro Ala Phe Pro Ser Pro Ala Val Gly Cys Pro
                                  25
              20
 Vàl Pro Xaa
          35
<210> 313
 <211> 90
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (90)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 313
 Met Ala Leu Glu Met Val Trp Gly Ser Val Tyr His Cys Ser Cys Tyr
                                      10
 Ile Thr Pro Trp Ser Lys Ile Gln Ser Phe Ser Leu Ser Leu Phe Gln
              20
                                  25
 Phe Ile Leu Gln Glu Val Asn Ile Thr Leu Pro Glu Asn Ser Val Trp
                             40
 Tyr Glu Arg Tyr Lys Phe Asp Ile Pro Val Phe His Leu Asn Gly Gln
 Phe Leu Met Met His Arg Val Asn Thr Ser Lys Leu Glu Lys Gln Leu
                     70
  65
 Leu Lys Leu Glu Gln Gln Ser Thr Gly Xaa
                 85 . -
 <210> 314
 <211> 95
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (95)
 <223> Xaa equals stop translation
 <400> 314
 Met Phe Val Leu Phe Ser Leu Pro Lys Tyr Ala Gly Leu Arg Leu Pro
 Ile Pro Gly Leu Ser Ala Leu Leu Val Phe Leu Leu Ser Leu Phe Ser
```

IMUV Arg Arg Ala Gln Val Glu Leu Thr Thr Gly Arg Glu Thr Leu Pro Lys 40

Asn Leu Gln Gly Tyr Phe Pro Glu Phe Gly Phe Gln Val Gln Asn Phe

Leu Ser Cys Lys Ile Tyr Ala Ala Ser Gln Lys Gln Pro Leu Pro Pro

Leu Tyr Gln Leu Arg Phe Tyr Leu Lys His Met Gly Leu Pro Xaa . 90 85

<210> 315

<211> 44

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (44)

<223> Xaa equals stop translation

<400> 315

Met Ser Ser His Trp Thr Leu Lys Ile Leu Leu Val Pro Leu Phe Tyr .10

Leu Ser Leu Glu Phe Pro Ser Gly Phe Val Leu Cys Leu Ala Asn Asp 25

Leu Gly Tyr His Phe Ser Ser Arg Val Arg Ser Xaa 35 40

<210> 316

<211> 31

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals stop translation

Met Leu Val Val Asn Ile Asn Leu Val Phe Leu Leu Phe Phe Ile Phe . 10

Leu Cys Tyr Leu Asp Ala Cys Ile Asn Val Phe Cys Phe Tyr Xaa 30 25

<210> 317

<211> 113

<212> PRT

```
<220>
<221> SITE
<222> (69)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (113)
<223> Xaa equals stop translation
<400> 317
Met Pro Val Leu Pro Gly Arg Thr Thr Ala Leu Leu Ser Leu Thr Leu
Ala Phe Ala Val Pro Cys Ser Gly Val Glu Ala Gly Pro Cys Val Pro
                       . .
                                25 .
Arg Ser His Gly Cys Ser Ser Trp Glu Ala Ser Val Cys Val Thr Ser 35 40 45
Ser Thr Pro Gly Gly Ser Trp Arg Ala Arg Ala Leu Phe Pro Ser Ala
Ala Trp His Arg Xaa Ala Ala Trp Asp Ser Pro Trp Thr Gln Thr Gly
                     70
Asp Phe Ala Arg Gly Ala Met Gly Gly Ala Gly Ala Leu Pro Gly Gly
                                      90
Cys Val Cys Ile Ser Gly Arg Pro Arg Ala Gln Lys Leu Pro Ala Leu
                                 105
Xaa
<210> 318
<211> 235
<212> PRT
<213> Homo sapiens
<400> 318
Met Ser Pro Arg Tyr Pro Gly Gly Pro Arg Pro Pro Leu Arg Ile Pro
                                      10
Asn Gln Ala Leu Gly Gly Val Pro Gly Ser Gln Pro Leu Leu Pro Ser
                                  25
Gly Met Asp Pro Thr Arg Gln Gln Gly His Pro Asn Met Gly Gly Pro
         35
                             40
Met Gln Arg Met Thr Pro Pro Arg Gly Met Val Pro Leu Gly Pro Gln
                          55
```

Asn Tyr Gly Gly Ala Met Arg Pro Pro Leu Asn Ala Leu Gly Gly Pro

70

<220>

```
Gly Met Pro Gly Met Asn Met Gly Pro Gly Gly Gly Arg Pro Trp Pro
Asn Pro Thr Asn Ala Asn Ser Ile Pro Tyr Ser Ser Ala Ser Pro Gly
            100
                               105
Asn Tyr Val Gly Pro Pro Gly Gly Gly Gly Pro Pro Gly Thr Pro Ile
Met Pro Ser Pro Ala Asp Ser Thr Asn Ser Gly Asp Asn Met Tyr Thr
    130
                       135
Leu Met Asn Ala Val Pro Pro Gly Pro Asn Arg Pro Asn Phe Pro Met
Gly Pro Gly Ser Asp Gly Pro Met Gly Gly Leu Gly Gly Met Glu Ser
                165
                                   170
His His Met Asn Gly Ser Leu Gly Ser Gly Asp Met Asp Ser Ile Ser
                        185
Lys Asn Ser Pro Asn Asn Met Ser Leu Ser Asn Gln Pro Gly Thr Pro
    195
                           200
                                                205.
Arg Asp Asp Gly Glu Met Gly Gly Asn Phe Leu Asn Pro Phe Gln Ser
                        215
                                           220
Glu Ser Tyr Ser Pro Ser Met Thr Met Ser Val
                    230
<210> 319
<211> 35
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (35)
<223> Xaa equals stop translation
Met Glu Asn Phe Phe Phe Ser Phe Tyr Leu Phe Leu Ile Thr Leu Ile
Pro Asn Gly Arg Thr Leu Ser Thr Thr Ala Asp His Cys Lys Ile Pro
                            . 25
Cys Ile Xaa
        35
<210> 320
<211> 35
<212> PRT
<213> Homo sapiens
```

```
<221> SITE
<222> (35)
<223> Xaa equals stop translation
<400> 320
Met Glu Leu Trp Glu Leu Ala Leu Cys Leu Val Ala Leu Ser Ala
His Met Phe Thr Val Gln Leu Leu Ala Asp Leu Gly Phe Leu Phe Gly
Gly Phe Xaa
         35
<210> 321
<211> 82
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (82)
<223> Xaa equals stop translation
<400> 321
Met Gly Ala Gly Ile Leu Ala Leu Leu Pro Leu Glu Ser Val Leu
 1
                                    10
Thr Cys Ser Trp Ile Ser Val Ser Thr Ser Glu Arg Gln Leu Trp Gln
                                25
Ser Ser Gln Lys Ala Thr Ile Leu Ser Leu Lys Leu Asp Ser Cys Phe
                            40
         35
Cys Gly His Ser Gly Leu Lys Gly Lys Asn Glu Asp Thr Asp Ser Ser
Wal Pro Ile Ile Pro Ser Lys Thr His Thr His Leu Gly Lys His Leu
65
                    70
Ile Xaa
<210> 322
<211> 72
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (47)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (70)
```

```
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (72)
<223> Kaa equals stop translation
<400> 322
Met Phe Tyr Phe Val Leu Phe Ile Tyr Ser Ser Ser Glu Thr Trp Ser
                                     10
Gly Ser Val Ala Gln Asp Gly Val His Gly Val Ile Ile Gly His Cys
Ser Val Glu Leu Pro Gly Ser Gly Asp Pro Pro Ala Ser Ala Xaa Leu
                             40
Val Ala Gly Thr Ile Gly Thr Cys Pro Thr Met Pro Gly Phe Val Tyr
                         55
     50
Phe Leu Asn Asp Val Xaa Asn Xaa
                     70
<210> 323
<211> 34
<212> PRT
<213> Homo sapiens`
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (34)
<223> Xaa equals stop translation
<400> 323
Met Asp Ser Thr Leu Arg Gln Gly Arg Xaa Leu Leu Thr Leu Val Pro
Ala Ser Leu Phe Ser Leu Thr Leu Gly Gly Pro Gly Pro Trp Lys Asp
                                 . 25
Pro Xaa
<210> 324
<211> 115
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (111)
```

```
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (112)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 324
Met Gln Val Val Gly Ser Trp Pro Gly Arg Val Gly Val Val Gly Leu
                                  10
 1
Ala Phe Ser Leu Val Ile Pro Pro Pro Ala Ile Cys Ile Ala Gly Pro
Ala Pro Gly Leu Gly Gly Glu Arg Gln Gln Lys Gly Leu Gly Arg
Gly Gly Gly Leu Arg Asn Cys Pro Gly Arg Val Gly Met Ala Ala
                       55
Glu Pro Gly Ala Leu Leu Cys Leu Thr Ser Arg Asp Gly Ser Leu Leu
                                 75
                  70
Leu Ser Cys Val Arg Pro His His Val Ile Lys Pro Lys Gly Thr Ala
               85
                                  90
105
                                                110
Gly Gly Xaa
115
<210> 325
<211> 108
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (98)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (99)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (100)
<223> Xaa equals any of the naturally occurring L-amino acids
```

<400> 325 Met Asp Leu Pro Gln Phe Ile Tyr Leu Phe Ile Phe Cys Phe Cys Cys Leu Ala Ile Val Asn Asn Ala Ser Ile Asn Ile His Ile Gln Val Ser Met Trp Leu Tyr Val Phe Ile Ser Leu Gly Tyr Leu His Gly Ser Arg Ile Leu Gly His Asn Ile Ile Leu Cys Leu Thr Ser Gln Arg Ile Ala 60 Lys Arg Phe Phe Ile Val Ala Ala Ser Phe Thr Phe Pro Pro Ala Met Tyr Lys Asp Phe Tyr Phe Ser Ile Ser Leu His Leu Pro Thr Leu Leu 90 -85 Phe Xaa Xaa Xaa Phe Val Phe Ser Leu Leu Pro Pro 100 <210> 326 <211> 65 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (36) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (65) <223> Xaa equals stop translation <400> 326 Met Cys Ser Pro Ser Leu Ser Ser Pro Pro Pro Leu Leu Gln Val ·10 Phe Phe Phe Phe Phe Ser Pro His Trp Ala Ala Lys Val Val Pro 20 Gln Trp Lys Xaa Arg His Pro Gln Val Ser Ser Gln Leu Leu Cys 40 35 Phe Leu Arg Val Asn Cys Gln Phe Leu Phe Leu Gln Glu Ile Leu Phe 55 Xaa

65

<210> 327 <211> 49 <212> PRT <213> Homo sapiens

Met Cys Leu Ser Arg Tro Lys Ile Phe Tyr Thr Leu Leu Ile Leu Phe 5

Ala Phe Phe Ser Ile Thr Ser Glu Asn Glu Thr Phe Tyr Met Ile Ile

Ile His His Asn Pro Thr Gln Ile Thr Ala Ser Cys Ser Phe Thr Phe 40

Leu

<210> 328

<211> 293

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids

Met Glu Arg Pro Asp Trp Glu Thr Ala Ile Gln Lys Pro Leu Cys Ser

Leu Pro Ala Gly Ser Gly Asn Ala Leu Ala Ala Ser Leu Asn His Tyr 2.0

Ala Gly Tyr Xaa Gln Val Thr Asn Glu Asp Leu Leu Thr Asn Cys Thr

Leu Leu Cys Arg Arg Leu Leu Ser Pro Met Asn Leu Leu Ser Leu 55

His Thr Ala Ser Gly Leu Arg Leu Phe Ser Val Leu Ser Leu Ala Trp 70 65

Gly Phe Ile Ala Asp Val Asp Leu Glu Ser Glu Lys Tyr Arg Arg Leu

Gly Glu Met Arg Phe Thr Leu Gly Thr Phe Leu Arg Leu Ala Ala Leu , 100

Arg Thr Tyr Arg Gly Arg Leu Ala Tyr Leu Pro Val Gly Arg Val Gly 120

Ser Lys Thr Pro Ala Ser Pro Val Val Val Gln Gln Gly Pro Val Asp 130

Ala His Leu Val Pro Leu Glu Glu Pro Val Pro Ser His Trp Thr Val 150 145

Val Pro Asp Glu Asp Phe Val Leu Val Leu Ala Leu Leu His Ser His

175

170

Leu Gly Ser Glu Met Phe Ala Ala Pro Met Gly Arg Cys Ala Ala Gly
180 185 190

Val Met His Leu Phe Tyr Val Arg Ala Gly Val Ser Arg Ala Met Leu 195 200 205

Leu Arg Leu Phe Leu Ala Met Glu Lys Gly Arg His Met Glu Tyr Glu 210 215 220

Cys Pro Tyr Leu Val Tyr Val Pro Val Val Ala Phe Arg Leu Glu Pro 225 230 235 240

Lys Asp Gly Lys Gly Val Phe Ala Val Asp Gly Glu Leu Met Val Ser 245 250 255

Glu Ala Val Gln Gly Gln Val His Pro Asn Tyr Phe Trp Met Val Ser 260 265 270

Gly Cys Val Glu Pro Pro Pro Ser Trp Lys Pro Gln Gln Met Pro Pro 275 280 285

Pro Glu Glu Pro Leu 290

<210> 329

<211> 68

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (68)

<223> Xaa equals stop translation

165

<400> 329

Met Pro Leu Glu Gly Phe Cys Leu Val Leu Asp Ile Gly Phe Leu Leu 1 5 10 15

Val Met Leu Ile Ser Leu Ala Ser Glu Cys Phe Thr Thr Cys Leu Asp 20 25 . 30

Ser Phe Ser Thr Thr Glu Pro Gly Cys Lys Phe Tyr Lys Leu Leu His 35 40 45

Ser Val Ser Leu Leu Asn Ile Asn Phe Asn Val Lys Ser Leu Leu Cys 50 55 60

Ser His Ile Xaa 65

<210> 330

<211> 105

<212> PRT

```
<220>
<221> SITE
<222> (105)
<223> Xaa equals stop translation
<400> 330
Met Pro Leu Gln Leu Ser Gly Gln Tyr Trp Ile Ser Leu Leu Val Phe
                                    10
Leu Ser Leu Gln Pro Phe Pro Gln Ala Ala Ile Pro Cys Ala Leu Thr
Asp Val Gly Gly Ser Cys Val Ile Cys His Ile Leu Leu Asn Cys Leu
                            40
Cys Ile Leu Phe Thr Leu Thr Ala Pro Ser Leu Ser His Val Leu Leu
                         55
Ile Lys Met Ser Leu Ser Val Cys Tyr Glu Pro Gly Ala Asp Leu Ser
                    70
                                        75
Asp Arg Ala Ala Thr Gly Asn Lys Leu Thr Arg Ser Thr Cys Leu
                                   90
Leu Met His Ser Asn Lys Leu Cys Xaa
   100
                                105
<210> 331
<211> 58
<212> PRT
<213> Homo sapiens
<400> 331
Met Trp Gly Cys Ser Gly Leu Gly His Arg Thr Val Ser Phe Leu Leu
                                   10
Leu Leu Pro Cys Ser Phe Pro Arg Pro Cys Gly Leu Phe Gly Leu Ile
             20
                                25
Pro Ile Ser Arg Pro Cys Lys Val Glu Ala Pro Arg Pro Leu Ser Pro
                            40
Thr Thr Leu Met Cys Gln Ser Pro Leu Leu
    50
                        55
<210> 332
<211> 39
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
 <221> SITE
 <222> (39)
 <223> Xaa equals stop translation
 <400> 332
 Met Leu Asn Val Leu Ser Lys Val Gln Gln Leu Val Ser Xaa Leu Gly
                                     10
 Leu Val Thr Phe Leu Leu Asn His Ser Ala Ala Gly Gly Ser Pro Gln
              20
                                 25
 His Arg Trp Leu Leu Leu Xaa
         35
 <210> 333
 <211> 72
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (58)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
 <222> (72)
 <223> Xaa equals stop translation
 <400> 333
 Met Lys Ala Ile Ala Arg Ala Cys Leu Leu Ser Leu Leu Val Leu
 Pro His Val Val Ser Glu His Leu Phe Trp His His Asn Pro Arg His
                                 25
 Pro Val Ile Trp Pro Phe Pro Pro Phe His Leu Ile Ser Cys Ser Val
  - 35
                             40
 Ser Ala Ser Thr Trp His Leu Gly Glu Xaa Leu Leu Leu Val Pro
                         55
 Ile Ala Pro Ser Val Trp Ser Xaa
                     70
 <210> 334
 <211> 62
<212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (62)
 <223> Xaa equals stop translation
```

```
<400> 334
```

Met Glu Gln Gly Gly Gly Pro Arg Leu Leu Leu Leu Ile Pro Gly Leu
1 5 10 15

Leu His Asn Thr Tyr Leu Ala Arg Pro Gly Asp Phe Pro Ala Gln Gly 20 25 30

Thr Thr Glu Asn Thr Glu Cys Gln Gly Ser Pro Ser Pro Ile Ser His
35 40 45

<210> 335

<211> 286

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (286)

<223> Xaa equals stop translation

<400> 335

Met Pro Leu Leu Phe Phe Ser Val Ser Thr Leu Phe Ser Gly Ser Val 1 5 10 15

Thr Leu Gin Gln Arg Gly Met Phe Leu Pro Trp Thr Gly Thr Gly Glu 20 25 30

Gln Val Leu Ala Leu Leu Trp Pro Arg Phe Glu Leu Ile Leu Glu Met 35 40 45 .

Asn Val Gln Ser Val Arg Ser Thr Asp Pro Gln Arg Leu Gly Gly Leu 50 55 60

Asp Thr Arg Pro His Tyr Ile Thr Arg Arg Tyr Ala Glu Phe Ser Ser 65 70 75 80

Ala Leu Val Ser Ile Asn Gln Thr Ile Pro Asn Glu Arg Thr Met Gln 85 90 95

Leu Leu Gly Gln Leu Gln Val Glu Val Glu Asn Phe Val Leu Arg Val
100 105 110

Ala Ala Glu Phe Ser Ser Arg Lys Glu Gln Leu Val Phe Leu Ile Asn 115 120 125

Asn Tyr Asp Met Met Leu Gly Val Leu Met Glu Arg Ala Ala Asp Asp 130 135 140

Ser Lys Glu Val Glu Ser Phe Gln Gln Leu Leu Asn Ala Arg Thr Gln 145 150 155 160

Glu Phe Ile Glu Glu Leu Leu Ser Pro Pro Phe Gly Gly Leu Val Ala 165 170 175

Phe Val Lys Glu Ala Glu Ala Leu Ile Glu Arg Gly Gln Ala Glu Arg 185 Leu Arg Gly Glu Glu Ala Arg Val Thr Gln Leu Ile Arg Gly Phe Gly 200 Ser Ser Trp Lys Ser Ser Val Glu Ser Leu Ser Gln Asp Val Met Arg 220 Ser Phe Thr Asn Phe Arg Asn Gly Thr Ser Ile Ile Gln Gly Ala Leu 230 225 Thr Gln Leu Ile Gln Leu Tyr His Arg Phe His Arg Val Leu Ser Gln 250 245 Pro Gln Leu Arg Ala Leu Pro Ala Arg Ala Glu Leu Ile Asn Ile His 265 His Leu Met Val Glu Leu Lys Lys His Lys Pro Asn Phe Xaa <210> 336 <211> 55 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (55) <223> Xaa equals stop translation <400> 336 Met Phe Arg Ala Leu Arg Asp Leu Leu Thr His Tyr Pro Gln Gln Ile Leu Leu Gln Val Leu Val Val Met Tyr Gln Val Leu Gln Val Trp Glu 25 . 20 Leu Pro Trp Pro Glu Leu Ile His Leu Gln Gly Ile Val Pro Thr Asp 40 Gln Leu His Leu Lys Gln Xaa 50 55 -<210> 337 <211> 59 <212> PRT <213> Homo sapiens <400> 337 Met Ser Tyr Pro Leu Phe Leu Phe Met Ser Cys Met Val Ile Ser Leu Ser Pro Asn Ala Gly Ser Gln Thr Ser Thr Val Arg Cys Leu Ser Asp 20 25

```
Leu Val Thr Phe Thr Leu Ile Lys Gly Ser Pro Val His Gln Thr Pro
         35
                            40
Tyr Leu Glu Ser Ser Ile Asn Cys Ile Thr Phe
<210> 338
<211> 120
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (120)
<223> Xaa equals stop translation
<400> 338
Met His Pro Ala Arg Lys Leu Leu Ser Leu Leu Phe Leu Ile Leu Met
Gly Thr Glu Leu Thr Gln Asp Ser Ala Ala Pro Asp Ser Leu Leu Arg
                                                    30
             20
                                25
Ser Ser Lys Gly Ser Thr Arg Gly Ser Leu Ala Ala Ile Val Ile Trp
Arg Gly Lys Ser Glu Ser Arg Ile Ala Lys Thr Pro Gly Ile Phe Arg
  50 55
Gly Gly Gly Thr Leu Val Leu Pro Pro Thr His Thr Pro Glu Trp Leu
Ile Leu Pro Leu Gly Ile Thr Leu Pro Leu Gly Ala Pro Glu Thr Gly
                                   90
                85
Gly Gly Asp Cys Ala Ala Glu Thr Trp Lys Gly Ser Gln Arg Ala Gly
            100
                               105
Gln Leu Cys Ala Leu Leu Ala Xaa
       115
<210> 339
<211> 38
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids.
<400> 339
Met Pro Ser Phe Phe Leu Ser Leu Ile Gln Thr Asn Thr Leu Gly Ser
Ala Ser Phe Leu Leu Phe Leu Thr Leu His Ile His Leu Ser Pro Asn
```

25

```
Xaa Val His Ser Ala Ser
· 35 ·
```

<210> 340

<211> 46

<212> PRT

<213> Homo sapiens

<400> 340

Met Phe Ser Arg Thr Ser Asn Phe Trp Thr Phe Phe Phe Gln Phe Leu 1 5 10 15

Ile Phe Lys Val Phe Leu Val Leu Lys Asn Leu Phe Thr Ser Gln Lys
20 25 30

Ile Tyr Lys Ile Tyr Ser Glu Lys Pro Lys Lys Lys Lys 40 45

<210> 341

<211> 18

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals stop translation

<400> 341

Met Gly Leu Leu Ile Phe Met Leu Leu Ile Gly Ile His Ser Gln Cys
1 5 10 15

Ser Xaa

<210> 342

<211> 87

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (87)

<223> Xaa equals stop translation

<400> 342

Met Val Leu Phe Cys Phe Val Leu Phe Cys Phe Val Phe Glu Met Asp 1 5 10 15

Ser Ser Ser Val Thr Gln Ala Gly Val Gln Trp Cys Asp Leu Gly Ser 20 25 30

Leu Gln Ala Pro Pro Pro Gly Phe Ser Pro Phe Ser Cys Leu Ser Leu

35 40 45	5
----------	---

Pro Ser Ser Trp Asp Tyr Arg Arg Pro Pro Pro Arg Pro Ala Asn Phe 50 55 60

Leu Tyr Phe Leu Val Glu Thr Gly Phe His His Val Ser Gln Asp Gly 65 70 75 80

Leu Asp Leu Leu Thr Ser Xaa

<210> 343.

<211> 538

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (538)

<223> Xaa equals stop translation

<400> 343

Met Ser Thr Lys Lys Leu Cys Ile Val Gly Gly Ile Leu Leu Val Phe 1 5 10

Gln Ile Ile Ala Phe Leu Val Gly Gly Leu Ile Ala Pro Gly Pro Thr 20 25 30

Thr Ala Val Ser Tyr Met Ser Val Lys Cys Val Asp Ala Arg Lys Asn 35 40 45

His His Lys Thr Lys Trp Phe Val Pro Trp Gly Pro Asn His Cys Asp 50 55 60

Lys Ile Arg Asp Ile Glu Glu Ala Ile Pro Arg Glu Ile Glu Ala Asn 65 70 75 80

Asp Ile Val Phe Ser Val His Ile Pro Leu Pro His Met Glu Met Ser 85 90 95

Pro Trp Phe Gln Phe Met Leu Phe Ile Leu Gln Leu Asp Ile Ala Phe 100 105 110

Lys Leu Asn Asn Gln Ile Arg Glu Asn Ala Glu Val Ser Met Asp Val 115 120 125

Ser Leu Ala Tyr Arg Asp Asp Ala Phe Ala Glu Trp Thr Glu Met Ala 130 135 140

His Glu Arg Val Pro Arg Lys Leu Lys Cys Thr Phe Thr Ser Pro Lys 145 150 155 160

Thr Pro Glu His Glu Gly Arg Tyr Tyr Glu Cys Asp Val Leu Pro Phe 165 170 175

Met Glu Ile Gly Ser Val Ala His Lys Phe Tyr Leu Leu Asn Ile Arg 180 185 190

Leu Pro Val Asn Glu Lys Lys Lys Ile Asn Val Gly Ile Gly Glu Ile 200 Lys Asp Ile Arg Leu Val Gly Ile His Gln Asn Gly Gly Phe Thr Lys Val Trp Phe Ala Met Lys Thr Phe Leu Thr Pro Ser Ile Phe Ile Ile 235 230 225 Met Val Trp Tyr Trp Arg Arg Ile Thr Met Met Ser Arg Pro Pro Val 250 Leu Leu Glu Lys Val Ile Phe Ala Leu Gly Ile Ser Met Thr Phe Ile Asn Ile Pro Val Glu Trp Phe Ser Ile Gly Phe Asp Trp Thr Trp Met Leu Leu Phe Gly Asp Ile Arg Gln Gly Ile Phe Tyr Ala Met Leu Leu 295 Ser Phe Trp Ile Ile Phe Cys Gly Glu His Met Met Asp Gln His Glu 315 310 Arg Asn His Ile Ala Gly Tyr Trp Lys Gln Val Gly Pro Ile Ala Val 325 330 Gly Ser Phe Cys Leu Phe Ile Phe Asp Met Cys Glu Arg Gly Val Gln 340 345 Leu Thr Asn Pro Phe Tyr Ser Ile Trp Thr Thr Asp Ile Gly Thr Glu 360 Leu Ala Met Ala Phe Ile Ile Val Ala Gly Ile Cys Leu Cys Leu Tyr 375 Phe Leu Phe Leu Cys Phe Met Val Phe Gln Val Phe Arg Asn Ile Ser 395 390 Gly Lys Gln Ser Ser Leu Pro Ala Met Ser Lys Val Arg Arg Leu His 405 Tyr Glu Gly Leu Ile Phe Arg Phe Lys Phe Leu Met Leu Ile Thr Leu 425 Ala Cys Ala Ala Met Thr Val Ile Phe Phe Ile Val Ser Gln Val Thr 435 Glu Gly His Trp Lys Trp Gly Gly Val Thr Val Gln Val Asn Ser Ala Phe Phe Thr Gly Ile Tyr Gly Met Trp Asn Leu Tyr Val Phe Ala Leu 470 465. Met Phe Leu Tyr Ala Pro Ser His Lys Asn Tyr Gly Glu Asp Gln Ser . 485 490



Asn Gly Met Gln Leu Pro Cys Lys Ser Arg Glu Asp Cys Ala Leu Phe 500 505 510

Val Ser Glu Leu Tyr Gln Glu Leu Phe Ser Ala Ser Lys Tyr Ser Phe 515 520 525

Ile Asn Asp Asn Ala Ala Ser Gly Ile Xaa 530 535

<210> 344

<211> 202

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (202)

<223> Xaa equals stop translation

<400> 344

Met Gly Ile Ala Leu Ala Val Leu Gly Trp Leu Ala Val Met Leu Cys
1 5 10 15

Cys Ala Leu Pro Met Trp Arg Val Thr Ala Phe Ile Gly Ser Asn Ile 20 25 30

Val Thr Ser Gln Thr Ile Trp Glu Gly Leu Trp Met Asn Cys Val Val 35 40 45

Gln Ser Thr Gly Gln Met Gln Cys Lys Val Tyr Asp Ser Leu Leu Ala 50 55 60

Leu Pro Gln Asp Leu Gln Ala Ala Arg Ala Leu Val Ile Ile Ser Ile
65 70 75 80

Ile Val Ala Ala Leu Gly Val Leu Leu Ser Val Val Gly Gly Lys Cys 85 90 95

Thr Asn Cys Leu Glu Asp Glu Ser Ala Lys Ala Lys Thr Met Ile Val

Ala Gly Val Val Phe Leu Leu Ala Gly Leu Met Val Ile Val Pro Val
115 120 125

Ser Trp Thr Ala His Asn Ile Ile Gln Asp Phe Tyr Asn Pro Leu Val 130 135 140

Ala Ser Gly Gln Lys Arg Glu Met Gly Ala Ser Leu Tyr Val Gly Trp 145 150 155 160

Ala Ala Ser Gly Leu Leu Leu Gly Gly Gly Leu Leu Cys Cys Asn 165 170 175

Cys Pro Pro Arg Thr Asp Lys Pro Tyr Ser Ala Lys Tyr Ser Ala Ala 180 185 190

Arg Ser Ala Ala Ala Ser Asn Tyr Val Kaa

```
<210>. 345
```

. <211> 122

<212> PRT

<213> Homo sapiens

<400> 345

Met Val Ser Ile Ser Val Val Leu Arg Val Ser Leu Pro Thr Leu Glu
1 5 10 15

Pro Val Pro Val Ala Gly Arg Ser Ile Trp Ile Ser Thr Thr Ser Pro $20 \\ 25 \\ 30$

Ser Met Ile Ser Val Ser Ser Leu Met Arg Thr Pro Met Asp Arg Arg 35 40 45

Lys Ala Cys Val Ser Ala Ser Val Leu Leu Ile Ser Arg Glu Lys Ile 50 55 60

Ser Leu Pro Ala Met Ala Val Asn Gly Val Ser Gly Pro Arg Ala Cys 65 70 75 80

Ala Met Pro Met Ala Met Ala Val Phe Pro Val Pro Gly Trp Pro Ala 85 90 95

Thr Thr Pro Ala Ala Arg Arg Ala Ala Ser 115 120

<210> 346

<211> 260

<212> PRT

<213> Homo sapiens

<4.0.0> 3.46

Met Leu Ala Leu Leu Gly Leu Ser Gln Ala Leu Asn Ile Leu Leu Gly
1 10 15

Leu Lys Gly Leu Ala Pro Ala Glu Ile Ser Ala Val Cys Glu Lys Gly
20 25 30

Asn Phe Asn Val Ala His Gly Leu Ala Trp Ser Tyr Tyr Ile Gly Tyr
35 40 45

Leu Arg Leu Ile Leu Pro Glu Leu Gln Ala Arg Ile Arg Thr Tyr Asn 50 55 60

Gln His Tyr Asn Asn Leu Leu Arg Gly Ala Val Ser Gln Arg Leu Tyr
65 70 75 80

Ile Leu Leu Pro Leu Asp Cys Gly Val Pro Asp Asn Leu Ser Met Ala 85 90 95 Asp Pro Asn Ile Arg Phe Leu Asp Lys Leu Pro Gln Gln Thr Gly Asp 105 Arg Ala Gly Ile Lys Asp Arg Val Tyr Ser Asn Ser Ile Tyr Glu Leu 120 125 Leu Glu Asn Gly Gln Arg Ala Gly Thr Cys Val Leu Glu Tyr Ala Thr Pro Leu Gln Thr Leu Phe Ala Met Ser Gln Tyr Ser Gln Ala Gly Phe 145 150 155 Ser Gly Glu Asp Arg Leu Glu Gln Ala Lys Leu Phe Cys Arg Thr Leu Glu Asp Ile Leu Ala Asp Ala Pro Glu Ser Gln Asn Asn Cys Arg Leu 185 Ile Ala Tyr Gln Glu Pro Ala Asp Asp Ser Ser Phe Ser Leu Ser Gln 195 200 Glu Val Leu Arg His Leu Arg Gln Glu Glu Lys Glu Glu Val Thr Val 220 215 Gly Ser Leu Lys Thr Ser Ala Val Pro Ser Thr Ser Thr Met Ser Gln 230 235 Glu Pro Glu Leu Leu Ile Ser Gly Met Glu Lys Pro Leu Pro Leu Arg 250 , . 245 Thr Asp Phe Ser 260-<210> 347 <211> 48 <212> PRT <213> Homo sapiens

```
<210> 348
<211> 334
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (288)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (334)
<223> Xaa equals stop translation
<400> 348
Met Ala Ala Ala Trp Leu Gln Val Leu Pro Val Ile Leu Leu
Leu Gly Ala His Pro Ser Pro Leu Ser Phe Phe Ser Ala Gly Pro Ala
                25
Thr Val Ala Ala Ala Asp Arg Ser Lys Trp His Ile Pro Ile Pro Ser
                          40 .
Gly Lys Asn Tyr Phe Ser Phe Gly Lys Ile Leu Phe Arg Asn Thr Thr
                        55
Ile Phe Leu Lys Phe Asp Gly Glu Pro Cys Asp Leu Ser Leu Asn Ile
                                      75
 65
Thr Trp Tyr Leu Lys Ser Ala Asp Cys Tyr Asn Glu Ile Tyr Asn Phe
                                   90
Lys Ala Glu Glu Val Glu Leu Tyr Leu Glu Lys Leu Lys Glu Lys Arg
                              105
           100
Gly Leu Ser Gly Lys Tyr Gln Thr Ser Ser Lys Leu Phe Gln Asn Cys
                         120
Ser Glu Leu Phe Lys Thr Gln Thr Phe Ser Gly Asp Phe Met His Arg
                   135 140
Leu Pro Leu Leu Gly Glu Lys Gln Glu Ala Lys Glu Asn Gly Thr Asn
                                     155
Leu Thr Phe Ile Gly Asp Lys Thr Ala Met His Glu Pro Leu Gln Thr
               165
Trp Gln Asp Ala Pro Tyr Ile Phe Ile Val His Ile Gly Ile Ser Ser
                               185
Ser Lys Glu Ser Ser Lys Glu Asn Ser Leu Ser Asn Leu Phe Thr Met
        195
                           200
Thr Val Glu Val Lys Gly Pro Tyr Glu Tyr Leu Thr Leu Glu Asp Tyr
                       215
    210
```

```
Pro Leu Met Ile Phe Phe Met Val Met Cys Ile Val Tyr Val Leu Phe
                      230
   Gly Val Leu Trp Leu Ala Trp Ser Ala Cys Tyr Trp Arg Asp Leu Leu
                  245 ·
   Arg Ile Gln Phe Trp Ile Gly Ala Val Ile Phe Leu Gly Met Leu Glu
                                  265
   Lys Ala Val Phe Tyr Ala Glu Phe Gln Asn Ile Arg Tyr Lys Gly Xaa
                                                 285
           275
                              280
   Ser Val Gln Gly Ala Leu Ile Leu Ala Glu Leu Leu Ser Ala Val Lys
   Arg Ser Leu Ala Arg Thr Leu Val Ile Ile Val Ser Leu Gly Tyr Gly
                                         315
                      310 .
   Ile Val Lys Pro Arg Leu Glu Ser Leu Phe Ile Arg Leu Xaa
       325
                               330
   <210> 349
   <211> 200
   <212> PRT
   <213> Homo sapiens
   <220>
   <221> SITE
   <222> (4)
   <223> Xaa equals any of the naturally occurring L-amino acids
   <220>
   <221> SITE
   <222> (193)
   <223> Xaa equals any of the naturally occurring L-amino acids
. <220>
   <221> SITE
   <222> (200)
   <223> Xaa equals stop translation
   Met Val Leu Xaa Val Val Thr Leu Gly Leu Ala Leu Phe Thr Leu Cys
   Gly Lys Phe Lys Arg Trp Lys Leu Asn Gly Ala Phe Leu Leu Ile Thr
         . 20
                                   25
   Ala Phe Leu Ser Val Leu Ile Trp Val Ala Trp Met Thr Met Tyr Leu
                               40
   Phe Gly Asn Val Lys Leu Gln Gln Gly Asp Ala Trp Asn Asp Pro Thr
        Leu Ala Ile Thr Leu Ala Ala Ser Ala Gly Ser Ser Ser Ser Thr
                   70-
```

```
Pro Ser Leu Arg Ser Thr Ala Pro Phe Cys Gln Pro Cys Arg Arg Thr
                                   90
                85
Arg Pro Thr Thr Ser Thr Arg Arg Ser Pro Gly Cys Gly Arg Arg Pro
                                                 110
           100
                  105
Ser Arg Arg Thr Cys Ser Cys Arg Gly Pro Ile Trp Arg Thr Arg Pro
                          120
Ser Pro Trp Met Asn Thr Met Gln Leu Ser Glu Gln Gln Asp Phe Pro
130 . 135
Thr Ala Ala Trp Glu Lys Asp Pro Val Ala Ala Trp Gly Lys Asp Pro
                  150
Ala Leu Arg Leu Glu Ala Thr Cys Ile Ser Gln Leu Arg Trp Pro Ser
            165
                                170
Cys Ser Thr Val Gly Pro Ser Gln Leu Leu Arg Gln Val Thr Gln Glu
                          185
                                          190
Xaa Thr Phe Gly Glu Arg Leu Xaa
    195
<210> 350
<211> 24
<212> PRT.
<213> Homo sapiens
<220>
<221> SITE
<222> (24)
<223> Xaa equals stop translation
<400> 350
Met Leu Leu His His Gln Leu Leu Ile Val Thr Leu His Leu Val Leu
                                   10
. 1
Leu Leu Ala Thr Leu Leu Val Xaa
            20
<210> 351
<211> 143
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (131)
```

<223> Xaa equals any of the naturally occurring L-amino acids

```
<220>
<221> SITE
<222> (143)
<223> Xaa equals stop translation
<400> 351
Met Thr Lys Ala Leu Leu Ile Tyr Leu Val Ser Ser Phe Leu Ala Leu
                                     10
Asn Gln Ala Ser Leu Ile Ser Arg Cys Asp Leu Ala Gln Val Leu Gln
                                 25
Leu Glu Asp Leu Asp Gly Phe Glu Gly Tyr Ser Leu Ser Asp Trp Leu
Cys Leu Ala Phe Val Glu Ser Lys Phe Asn Ile Ser Lys Ile Asn Glu
                55
Asn Ala Asp Gly Ser Phe Asp Tyr Gly Leu Phe Gln Ile Asn Ser His
Tyr Trp Cys Asn Xaa Tyr Lys Ser Tyr Ser Glu Asn Leu Cys His Val
Asp Cys Gln Asp Leu Leu Asn Pro Asn Leu Leu Ala Gly Ile His Cys
                              105
            100
Ala Lys Arg Ile Val Ser Gly Ala Arg Gly Met Asn Asn Trp Val Arg
                           120
Met Glu Xaa Cys Thr Val Gln Ala Gly His Ser Ser Thr Gly Xaa
    130
                        135
<210> 352
<211> 95
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (95)
<223> Xaa equals stop translation
<400> 352
Met Leu Val Ile Ala Gly Gly Ile Leu Ala Ala Leu Leu Leu Ile
                                    1:0
Val Val Val Leu Cys Leu Tyr Phe Lys Ile His Asn Ala Leu Lys Ala
                            . 25
             20
Ala Lys Glu Pro Glu Ala Val Ala Val Lys Asn His Asn Pro Asp Lys
                             40
Val Trp Trp Ala Lys Asn Ser Gln Ala Lys Thr Ile Ala Thr Glu Ser
     50
                         55
                                             60
Cys Pro Ala Leu Gln Cys Cys Glu Gly Tyr Arg Met Cys Ala Ser Phe
```

75 70 65 Asp Ser Leu Pro Pro Cys Cys Cys Asp Ile Asn Glu Gly Leu Xaa 90 85 <210> 353 <211> 38 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (38) <223> Xaa equals stop translation <400> 353 Met Leu Leu Lys Ser Asn Ile Leu Met Leu Asn Leu Phe Ala Ala Asn 10 Val Gly Ala Asn Phe Ala Leu Thr Val Glu Lys Ile Gly Met Ile Leu 25 Leu Asn Val Ser Gly Xaa 35 <210> 354 <211> 39 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (39) <223> Xaa equals stop translation <400> 354 Met Leu Val Val Ala Phe Gly Leu Leu Val Leu Tyr Ile Leu Leu Ala 1 5 . 10 Ser Ser Trp Lys Arg Pro Glu Pro Gly Ile Leu Thr Asp Arg Gln Pro 25 20 Leu Leu His Asp Gly Glu Xaa <210> 355 <211> 71 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (35) <223> Xaa equals any of the naturally occurring L-amino acids

```
<220>
<221> SITE
<222> (71)
<223> Xaa equals stop translation
<400> 355
Ser Asp Pro Leu Ala Ser Ala Ser Gln Asn Ala Gly Ile Val Ser Val
                                     10
Gly Leu Cys Thr Arg Pro Gly Pro Gln Phe Lys Asn Ala Gln Pro Pro
                                 25
Phe Pro Xaa Gln Lys Ala Pro Arg Cys Leu Trp Glu Asn Gln Pro Pro
Pro Trp Arg Lys Ala Trp Asp Leu Pro Ser His Leu Gly Arg Arg Gly
Ile Cys Gly Lys Ser Phe Xaa
<210> 356
<211> 227
<212> PRT
<213> Homo sapiens
<400> 356
Met Ala Asp Leu Leu Gly Ser Ile Leu Ser Ser Met Glu Lys Pro Pro
Ser Leu Gly Asp Gln Glu Thr Arg Arg Lys Ala Arg Glu Gln Ala Ala
                                 25
Arg Leu Lys Lys Leu Gln Glu Gln Glu Lys Gln Gln Lys Val Glu Phe
         3.5
Arg Lys Arg Met Glu Lys Glu Val Ser Asp Phe Ile Gln Asp Ser Gly
Gln Ile Lys Lys Lys Phe Gln Pro Met Asn Lys Ile Glu Arg Ser Ile
                     70
Leu His Asp Val Val Glu Val Ala Gly Leu Thr Ser Phe Ser Phe Gly
                                      90
Glu Asp Asp Cys Arg Tyr Val Met Ile Phe Lys Lys Glu Phe Ala
                                                     110
                                 105
 Pro Ser Asp Glu Glu Leu Asp Ser Tyr Arg Arg Gly Glu Glu Trp Asp
                             120
 Pro Gln Lys Ala Glu Glu Lys Arg Lys Leu Lys Glu Leu Ala Gln Arg
 Gln Glu Glu Glu Ala Ala Gln Gln Gly Pro Val Val Val Ser Pro Ala
```

150

```
IUIUHEBU IEUFUI
```

```
Ser Asp Tyr Lys Asp Lys Tyr Ser His Leu Ile Gly Lys Gly Ala Ala
               165
                         170
 Lys Asp Ala Ala His Met Leu Gln Ala Asn Lys Thr Tyr Gly Cys Val
             180
                               185
 Pro Val Ala Asn Lys Arg Asp Thr Arg Ser Ile Glu Glu Ala Met Asn
                            200
 Glu Ile Arg Ala Lys Lys Arg Leu Arg Gln Ser Gly Glu Glu Leu Pro
              . 215
                                            220
 Pro Thr Ser
 225
 <210> 357
<211> 90
 <212> PRT
<213> Homo sapiens
 <220>
 <221> SITE
 <222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (53)
 <223> Kaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
 <222> (59)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (60)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (61)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (64)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (65)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
```

```
<222> (90)
<223> Xaa equals stop translation
<400> 357
Met Trp Asp Trp Asp Trp Ser Ala Pro Trp Ser Trp Pro Leu Trp Leu
                                   10
Ser Leu Ala Leu Val Cys Leu Ser Ala Gly Ala Lys Gly His Arg Ala
    20
                               25
Ser Glu Ala Gly His Ala Arg Ala Leu Thr Cys Glu Met Gly Ser Glu
Phe Xaa Thr Ala Xaa Gly Leu Val Leu Gly Xaa Xaa Xaa Trp Thr Xaa
        . 55
Xaa Asn Gly Ser Ala Gly Pro Glu Arg Arg Gly Trp Arg Pro Ala Ala
                   70
Phe Leu Ala Val Phe Leu Leu Gly Asp Xaa
               85
100
<210> 358
<211> 48
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 358
Met Phe Gly Pro Thr Phe His Ser Leu Val Leu Val Pro Pro Trp Pro
Asn Leu Ser Leu Leu His Phe Thr Ser Pro Val Gly Gln His Ser Ser
                               25
            2.0
Phe Leu Pro Thr Ser Leu Arg Leu Xaa Lys Lys Lys Lys Lys Lys
        35
                           40
                                               45
```

```
<210> 359
<211> 56
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (56)
<223> Xaa equals stop translation

<400> 359
```

```
Met Cys Ser Lys Asn Gly Phe Leu Leu Ala Trp Ser Trp Asn Ser Pro 1 .5 10 15
```

Trp Leu Pro Gln Ala Ser Leu Ala His Gly Cys Trp Gly Arg Trp Met 20 25 30

Ser Asp Leu Val Gly Cys Ser Arg Glu Asn Lys Cys Ala Leu Arg Asp 35 40 45

His Ser Glu Arg Val Gln Gly Xaa 50 55

<210> 360

<211> 222

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (222)

<223> Xaa equals stop translation

<400> 360

Ser Pro Leu Xaa Phe Cys Val Val Leu Leu Gln Ala Ala Arg Gly
1 5 10 15

Tyr Val Val Arg Lys Pro Ala Gln Ser Arg Leu Asp Asp Pro Pro 20 25 30

Pro Ser Thr Leu Leu Lys Asp Tyr Gln Asn Val Pro Gly Ile Glu Lys 35 40 45

Val Asp Asp Val Val Lys Arg Leu Ser Leu Glu Met Ala Asn Lys 50 . 55 60

Lys Glu Met Leu Lys Ile Lys Gln Glu Gln Phe Met Lys Lys Ile Val 65 70 75.

Ala Asn Pro Glu Asp Thr Arg Ser Leu Glu Ala Arg Ile Ile Ala Leu 85 90 95

Ser Val Lys Ile Arg Ser Tyr Glu Glu His Leu Glu Lys His Arg Lys 100 105 110

Asp Lys Ala His Lys Arg Tyr Leu Leu Met Ser Ile Asp Gln Arg Lys 115 120 125

Lys Met Leu Lys Asn Leu Arg Asn Thr Asn Tyr Asp Val Phe Glu Lys 130 135

Ile Cys Trp Gly Leu Gly Ile Glu Tyr Thr Phe Pro Pro Leu Tyr Tyr 145 150 155 . 160

```
Arg Arg Ala His Arg Arg Phe Val Thr Lys Lys Ala Leu Cys Ile Arg
165 170 175
```

Val Phe Gln Glu Thr Gln Lys Leu Lys Lys Arg Arg Arg Ala Leu Lys
180 185 190

Ala Ala Ala Ala Gln Lys Gln Ala Lys Arg Arg Asn Pro Asp Ser 195 200 205

Pro Ala Lys Ala Ile Pro Lys Thr Leu Lys Asp Ser Gln Xaa 210 215 220

<210> 361

<211> 64

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (64)

<223> Xaa equals stop translation

<400> 361

Met Gly Ala Pro Ala Ala Ser Leu Leu Leu Leu Leu Leu Leu Phe Ala 1 5 10 15

Cys Cys Trp Ala Pro Gly Gly Ala Asn Leu Ser Gln Asp Asp Ser Gln 20 25 30

Pro Trp Thr Ser Asp Glu Thr Val Val Ala Gly Gly Thr Val Val Leu \$35\$ 40 45 .

Lys Cys Gln Val Lys Asp His Glu Asp Ser Ser Leu Gln Trp Ser Xaa 50 55 60

<210> 362

<211> 154

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (124)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

```
<222> (125)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (135)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (144)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (154)
<223> Xaa equals stop translation
<400> 362
Met Val Ala Pro Val Trp Tyr Leu Val Ala Ala Ala Leu Leu Val Gly
                                  10 .
Phe Ile Leu Phe Leu Thr Arg Ser Arg Gly Arg Ala Ala Ser Ala Gly
            20 25
Gln Glu Pro Leu His Asn Glu Glu Leu Ala Gly Ala Gly Arg Val Ala
Gln Pro Gly Pro Leu Glu Pro Glu Glu Pro Arg Ala Gly Gly Arg Pro
Arg Arg Arg Asp Leu Gly Ser Arg Leu Gln Ala Gln Arg Arg Ala
Gln Arg Val Ala Trp Ala Glu Ala Asp Glu Asn Glu Glu Glu Ala Val
                                  90 95
                85
Ile Leu Ala Gln Glu Glu Gly Val Glu Lys Pro Ala Glu Xaa His
                               105
           100
Leu Ser Gly Lys Ile Gly Ala Lys Lys Leu Arg Kaa Kaa Glu Glu Lys
                                              125
       115
                           120
Gln Ala Arg Lys Ala Gln Xaa Glu Ala Glu Glu Ala Glu Arg Glu Xaa
                                          140 . .
                       135
Arg Lys Arg Leu Glu Ser Gln Arg Glu Kaa
                   150
145
<210> 363
<211> 17
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
```

<222> (7)

```
<223> Xaa equals stop translation
<400> 363
Met Gln Lys Cys Met Leu Ser Ala Leu Val Phe His Ile Gln Trp Ser
               5 ·
                          10
Xaa
<210> 364
<211> 10
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals stop translation
<400> 364
Met Leu Val Cys Ser Phe Leu Phe Leu Xaa
1 5 10
<210> 365
<211> 14
<212> PRT
<213> Homo sapiens
₹220>
<221> SITE
<222> (14)
<223> Xaa equals stop translation
Val Ile Glu Leu Cys Val Ser Leu Arg Ser Leu Asn Phe Xaa
<210> 366
<211>, 18
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
```

```
<223> Xaa equals any of the naturally occurring L-amino acids
 <220>
  <221> SITE
  <222> (10)
  <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (18)
  <223> Xaa equals stop translation
  <400> 366
 Met Cys Glu Phe Xaa Xaa Ile Met Xaa Leu Ala Gly Tyr Phe Ala
              - 5
 Cys Xaa
 <210> 367
 <211> 62
 <212> PRT
 <213> Homo sapiens
<220>
 <221> SITE
 <222> (62)
 <223> Xaa equals stop translation
 <400> 367
 Met Val Gly Gly Tyr Val Ser Ser Phe Ser Phe Pro Pro Val Ser Ser
                             10
 Ser Leu Leu Pro Ala Ser Phe Ala Phe Pro Phe Leu Pro Gly Thr
       , 20 .
                                 25
 Pro Cys Pro Phe Leu Tyr Phe Leu Pro Ser Pro Phe Ser Pro Leu Pro
                             40
 Leu Ser Leu Thr Arg Ser Asn Ser Phe Leu Leu Asn Gly Xaa
     50
                         55
 <210> 368
 <211> 33
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (33)
 <223> Xaa equals stop translation
 <400> 368
 Glu Lys Lys Ser Met Ser Val Ser Asp Ile Tyr Ala Leu Glu Ser Leu
```

Gly Arg Ser Leu Phe Thr Leu Asn Ser Met Cys Leu Pro Leu Ser Phe 20 25 30

Xaa

<210> 369

<211> 245

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 369

Met Gly Gly Ala Ser Arg Arg Val Glu Ser Gly Ala Trp Ala Tyr Leu 1 5 10 15

Ser Pro Leu Val Leu Arg Lys Glu Leu Glu Ser Leu Val Glu Asn Glu 20 25 30

Gly Ser Glu Val Leu Ala Leu Pro Glu Leu Pro Ser Ala His Pro Ile 35 40 45

Ile Phe Trp Asn Leu Leu Trp Tyr Phe Gln Arg Leu Arg Leu Pro Ser 50 55 60

Ile Leu Pro Gly Leu Val Leu Ala Ser Cys Asp Gly Pro Ser Xaa Ser 65 70 75 80

Gln Ala Pro Ser Pro Trp Leu Thr Pro Asp Pro Ala Ser Val Gln Val 85 90 95

Arg Leu Eu Trp Asp Val Leu Thr Pro Asp Pro Asn Ser Cys Pro Pro 100 105 110

Leu Tyr Val Leu Trp Arg Val His Ser Gln Ile Pro Gln Arg Val Val 115 120 125

Trp Pro Gly Pro Val Pro Ala Ser Leu Ser Leu Ala Leu Leu Glu Ser 130 140

Val Leu Arg His Val Gly Leu Asn Glu Val His Lys Ala Val Gly Leu 145 150 155 160

Leu Leu Glu Thr Leu Gly Pro Pro Pro Thr Gly Leu His Leu Gln Arg 165 170 175

Gly Ile Tyr Arg Glu Ile Leu Phe Leu Thr Met Ala Ala Leu Gly Lys 180 185 190

Asp His Val Asp Ile Val Ala Phe Asp Lys Lys Tyr Lys Ser Ala Phe 195 200 205

Asn Lys Leu Ala Ser Ser Met Gly Lys Glu Glu Leu Arg His Arg Arg

```
. 215
    210
                                          220
 Ala Gln Met Pro Thr Pro Lys Ala Ile Asp Cys Arg Lys Cys Phe Gly
                                     235
Ala Pro Pro Glu Cys
<210> 370
<211> 35
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (35)
<223> Xaa equals stop translation
<400> 370
Met Lys Phe Ser Leu Leu Phe Leu Pro Met Leu Leu Ile Leu Lys Pro
 Asp Leu Phe His Ile Ser Ile Cys Thr Leu Ala Ala Cys Gly Leu Thr
 . 20
                              25
Phe Pro Xaa
 35
<210> 371.
<211> .22
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (22) .
<223> Xaa equals stop translation
Met Leu Phe Phe Phe Ile Leu His Leu Leu Ser Ile Met Ser Phe Leu
Ser Pro Asp Ile Met Xaa
             20
<210> 372
<211> 98
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (82)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<400> 372
Met Phe Gly Leu Leu Val Glu Ser Gln Thr Leu Leu Glu Glu Asn Ala
                                    10
Val Gln Gly Thr Glu Arg Thr Leu Gly Leu Asn Ile Ala Pro Phe Ile
                                25
Asn Gln Phe Gln Val Pro Ile Arg Val Phe Leu Asp Leu Ser Ser Leu
Pro Cys Ile Pro Leu Ser Lys Pro Val Glu Leu Leu Arg Leu Asp Leu
Met Thr Pro Tyr Leu Asn Thr Ser Asn Arg Glu Val Lys Val Tyr Val
Cys Xaa Ile Trp Glu Asp Leu Thr Ala Ile Pro Phe Trp Val Ser Tyr
                                    90
Val Pro
<210> 373
<211> 78
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 373
Met Phe Gly Ala His Arg Xaa Trp Gln Gly Ser Val Leu Leu Phe Leu
                                    10
Ser Phe Ala Trp Gly Asn Gly Gly Ser Val Thr Phe Ser Asp Val Pro
Arg Val Met Pro Leu Ala Gly Gly Pro Xaa Xaa Gln Val Ser Ser Thr
                            40
Pro Arg Pro Pro Pro His Gln Val Thr Ser Ser Pro Gly Leu Glu Ser
Ala His Ile Val Cys Pro Glu Arg Lys Lys Lys Lys Lys
```

```
<210> 374
  <211> 31
 <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (4)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
  <222> (7)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
  <222> (20)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
  <222> (25)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
  <222> (28)
  <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (31)
  <223> Xaa equals stop translation
<400> 374
 Thr Leu Leu Xaa Phe Leu Xaa Leu Leu Thr Thr Glu Gly Gly Arg Glu
          · 5 ,
  Asn Ile Phe Xaa Gly Arg Ile Leu Xaa Leu Gln Xaa Ser Pro Xaa
               2.0
                                  2.5
                                                       30
 <210> 375
  <211> .57
  <212> PRT
 <213> Homo sapiens
 <220>
  <221> SITE
  <222> (32)
 <223> Kaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (57)
```

```
<223> Xaa equals stop translation
 <400> 375
 Met Leu Ser Phe Phe Ile Cys Leu Leu Ile Phe Val His Leu Leu
                        10
 Leu Ser Phe Leu Ile Ser Asp Trp Pro Pro Pro Thr Gly Ser Ala Xaa
                               25
 His Lys Ile Leu Arg Leu Met Val Val Gln Arg Leu Ser Leu Leu Asp
                           40
 Gln Arg Lys Arg Trp Ser Glu Ala Xaa
  . 50
                        55
 <210> 376
 <211> 63
<212> PRT
<213> Homo sapiens
<220>
 <221> SITE
 <22.2> (14)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 376
 Met Cys His His Ala Trp Leu Ile Phe Lys Phe Phe Val Xaa Met Gly
                                  10
 Ser His Tyr Val Ala Gln Ala Gly Phe Arg Phe Leu Cys Ser Arg Asp
             20
                               25
 Ser Ala Asn Leu Ala Pro Gln Ser Ala Gly Ile Thr Asn Val Ser His
                            40
 Cys Ile Trp Pro Ile Phe Phe Lys Lys Lys Met Gln Arg Cys
  50 . . .
 <210> 377
 <211> 38
 <212> PRT
 <213> Homo sapiens
 <400> 377
 Met Thr Met Val Leu Cys Ile Phe Ile Leu Gly His His Ala Arg Glu
       5 10 15
  Asp Pro Pro Ser Asn Gly His Ile Thr Ser Glu Gly Ala Phe Leu Val
                              25
  Asn Val Gly Ala Pro Gln
          35
```

<210> 378 <211> 98

```
<212> PRT
 <213> Homo sapiens
 <220>
<221> SITE
 <222> (45)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 378
 Met Leu Arg Leu Glu Ala Arg Ala Thr Thr Pro Gly Leu Gln Thr His
                                       10
 Ser Cys Leu Gly Phe Tyr Ile Lys Tyr Glu His Lys Asn Thr Phe Pro
                                   25
               20 .
 Lys Tyr Ser Leu Trp Leu Cys Leu Thr Leu Gly Thr Xaa Pro Ser Thr
                               40
  Ser Ser Ile Leu Arg Tyr Val Arg Gly Val Tyr Arg Gly Leu Glu Tyr
                           55
                                               60
  Ile Arg Phe Phe Ser Asn Ser Ser Ser Ser Arg Arg Leu Thr Thr
                      70
  Ser Leu Gly Phe Lys Val Ser Gly Leu Lys Phe Pro Pro Glu Ile Thr
                                       90
               85
  Ile Arg
  <210> 379
  <211> 15
  <212> PRT
  <213> Homo sapiens
 <220>
  <221> SITE
  <222> (15)
  <223> Xaa equals stop translation
  <400> 379
  Thr Leu Thr Ser Phe Leu Glu Leu Pro Leu Ala Pro Glu Pro Xaa
                                                           15
                                       10
  <210> 380
  <211> 34
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (34)
  <223> Xaa equals stop translation
  <400> 380
  Met His Arg Tyr Ile Thr Phe Phe Lys Cys Phe Arg Ser Val Ile Leu
```

```
15
                                   10
                 5
Asp Leu Leu Phe Ile Leu Ser Pro Leu Ser Gln Gly Cys Phe Ile Leu
           20
Phe Xaa
<210> 381
<211> 66
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (62)
<223> Xaa equals any of the naturally occurring L-amino acids
Met Phe Gly Phe Ile Phe Leu Leu Ile Phe Cys Ile Xaa Leu Cys
                 5 . , 10
Ser Arg Thr Leu Ser Thr Phe Ile Pro Lys Leu Val Gly Phe Leu Tyr
            20
Trp Lys Phe Ser Ile Asn Leu Ser Leu Leu Leu Thr Leu Ile Lys Lys
Lys Lys Lys Lys Lys Thr Pro Arg Gly Gly Pro Gly Xaa Gln Ser
                                , 60
                        55
<sub>.</sub> 50
Pro. Pro
65
<210> 382
<211> 317
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (207)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 382
Met Pro Gly Leu Gly Arg Pro Arg Gln Ala Arg Trp Thr Leu Met Leu
Leu Leu Ser Thr Ala Met Tyr Gly Ala His Ala Pro Leu Leu Ala Leu
```

Cys His Val Asp Gly Arg Val Pro Phe Arg Pro Ser Ser Ala Val Leu 35 40 45

Leu Thr Glu Leu Thr Lys Leu Leu Cys Ala Phe Ser Leu Leu Val 50 55 60

Gly Trp Gln Ala Trp Pro Gln Gly Pro Pro Pro Trp Arg Gln Ala Ala 65 70 75 80

Pro Phe Ala Leu Ser Ala Leu Leu Tyr Gly Ala Asn Asn Asn Leu Val 85 90 95

Ile Tyr Leu Gln Arg Tyr Met Asp Pro Ser Thr Tyr Gln Val Leu Ser 100 105 110

Asn Leu Lys Ile Gly Ser Thr Ala Val Leu Tyr Cys Leu Cys Leu Arg 115 120 125

His Arg Leu Ser Val Arg Gln Gly Leu Ala Leu Leu Leu Met Ala 130 135 140

Ala Gly Ala Cys Tyr Ala Ala Gly Gly Leu Gln Val Pro Gly Asn Thr 145 150 155 160

Leu Pro Ser Pro Pro Pro Ala Ala Ala Ser Pro Met Pro Leu His 165 170 175

Ile Thr Pro Leu Gly Leu Leu Leu Leu Ile Leu Tyr Cys Leu Ile Ser 180 185 190

Gly Leu Ser Ser Val Tyr Thr Glu Leu Leu Met Lys Arg Gln Xaa Leu 195 200 205

Pro Leu Ala Leu Gln Asn Leu Phe Leu Tyr Thr Phe Gly Val Leu Leu 210 215 .220

Asn Leu Gly Leu His Ala Gly Gly Gly Ser Gly Pro Gly Leu Leu Glu 225 230 235 240

Gly Phe Ser Gly Trp Ala Ala Leu Val Val Leu Ser Gln Ala Leu Asn 245 250 255

Gly Leu Leu Met Ser Ala Val Met Lys His Gly Ser Ser Ile Thr Arg 260 265 270

Leu Phe Val Val Ser Cys Ser Leu Val Val Asn Ala Val Leu Ser Ala 275 280 285

Val Leu Leu Arg Leu Gln Leu Thr Ala Ala Phe Phe Leu Ala Thr Leu 290 295 300

Leu Ile Gly Leu Ala Met Arg Leu Tyr Tyr Gly Ser Arg 305 310 315

<210> 383

<211> 31

<212> PRT

```
<213> Homo sapiens
<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (31)
<223> Xaa equals stop translation
<400> 383
Met Gly Glu Gln Pro His Phe Ser Leu Cys Val Leu Leu Ala. Ala Val
                              1.0
Arg Glu Asp Xaa Asp Pro Xaa Val Phe Pro Cys Cys Phe Leu Xaa
                             25 30
           20
<210> 384
<211> 43
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals stop translation
<400> 384
Met Ser Phe Ile Ala Leu His Pro Leu Leu Pro Glu Ala Ala Leu Gly
                        10
Val Pro Gly Gln Ser Pro His Arg Pro Leu Trp Gln Thr Gln Cys Cys
            20 . .
Val Ala Pro Pro Gln Pro Arg Ala Glu Phe Xaa
        35
                          40
<210> 385
<211> 255
<212> PRT
<213> Homo sapiens
<220>
 <221> SITE
 <222> (255)
<223> Xaa equals stop translation
<400> 385
 Met Val Thr Ala Leu Thr Leu Leu Ala Phe Pro Leu Leu Leu His
```

1				5					10					. 15	
Ala	Glu	Arg	Ile 20	Ser	Leu	Val	Phe	Leu 25	Leu	Leu	Phe	Leu	Gln 30	Ser	Phe
Leu	Leu	Leu 35	His	Leu	Leu	Ala	Ala 40	Gly	Ile	Pro	Val	Thr 45	Thr	Pro	Gly
Pro	Phe 50	Thr	Val	Pro	Trp	Gln 55	Ala	Val	Ser	Ala	Trp 60	Ala	Leu	Met	Ala
Thr 65	Gln	Thr	Phe	Tyr	Ser 70	Thr	Gly	His	Gln	Pro 75	Val	Phe	Pro	Ala	Ile 80
His	Trp	His	Ala	Ala 85	Phe	Val	GĨy	Phe	Pro 90	Glu	Gly	His	Gly	Ser 95	Cys
Thr	Trp	Leu	Pro 100	Ala	Leu	Leu	Val	Gly 105	Ala	Asn	Thr	Phe	Ala 110	Ser	His
Leu	Leu	Phe 115	Ala	Val	Gly	Cys	Pro 120	Leu	Leu	Leu	Leu	Trp 125	Pro	Phe	Leu
Cys	Glu 130	Ser	Gln	Gly	Leu	Arg 135		Arg	Gln	Gln	Pro 140	Pro	Gly	Asn	Glu
Ala 145	Asp	Ala	Arg	Val	Arg 150	Pro	Glu	Glu	Glu	Glu 155	Glu	Pro	Leu	Met	Glu 160
Met	Arg	Leu	Arg	Asp 165	Ala	Pro	Gln	His	Phe 170	Tyr	Ala	Ala	Leu	Leu 175	Gln
Leu	Gly	Leu	Lys 180	Tyr	Leu	Phe	Ile	Leu 185	Gly	Ile	Gln	Ile	Leu 190	Ala	Cys
Ala	Leu	Ala 195	Ala	Ser	Ile	Leu	Arg 200	Arg	His	Leu	Met	Val 205	Trp	Lys	Val
Phe	Ala 210	Pro	Lys	Phe		Phe 215	Glu	Ala	Val	Gly	Phe 220	Ile	Val	Ser	Ser
Val 225	Gly	Leu	Leu	Leu	Gly 230	Ilė	Ala	Leu	Val	Met 235	Arg	Val	Asp	Gly	Ala 240
Val	Ser	Ser	Trp	Phe 245	Arg	Gln	Leu	Phe	Leu 250	Ala	Gln	Gln	Arg	Xaa 255	
<210> 386 <211> 20 <212> PRT <213> Homo sapiens															
<220 <221 <222	.> S.					# 10 -			lv. o	06112	ring	T. – a:	mino	aci	1e

<220>

```
<221> SITE
<222> (20)
<223> Xaa equals stop translation
<400> 386
Met Kaa Gly Pro Trp Gly Glu Glu Ala Leu Ile Arg Leu Pro Thr Pro
Ser Gly Leu Xaa
<210> 387
<211> 64
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (64)
<223> Xaa equals stop translation
<400> 387
Met Ala Thr Leu Glu Xaa Asn Gln Arg Glu Val Asp Arg Glu Ile Arg
                     10 . 15
Ser Leu Leu Trp Phe Leu Leu Cys Glu Ile Val Ser Gly Trp Leu
        .20
Cys Pro Glu Gly Pro Trp Phe Ser Gln Gly Cys Gln Ile Tyr Lys Asn
Leu Ser Ser Ser Ser Tyr Asn Leu Ser Phe Leu Leu Ser Leu Xaa
    50 55
<210> 388
<211> 40
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (40)
<223> Xaa equals stop translation
<400> 388
Met Ile His Ser Gly Cys Thr Ser Gln Cys Leu Glu Gly Phe Phe Leu
1 . 5 . 10
```

```
Ile Phe Leu Leu Asp Phe Asn Pro Val Leu Ala Leu Asp Leu Ile Gly
      20 25
 Ile Met Arg Lys Ala Ser His Xaa
         35
 <210> 389
 <211> 35
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (35)
 <223> Xaa equals stop translation
 Met Val Phe Ser Ala Arg Val Ser Leu Tyr Thr Arg Phe Lys Val Ile
                                   10
 Leu Leu Ser Leu Leu Ile Met Ile Leu His Val Cys Trp Val Trp Val
                                                  30
                               25
             20
 Ile Leu Xaa
     35
 <210> 390
<211> 11
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (11)
 <223> Xaa equals stop translation
 <400> 390
 Gly Leu Leu Tyr Ile Met Tyr Cys Asn Ile Xaa
  1 5
 <210> 391
 <211> 64
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (64)
 <223> Xaa equals stop translation
 Met Asn Asn Gly Leu Leu Gln Gln Pro Ser Ala Leu Met Leu Leu Pro
                                  10
                  5
```

<400> 394

```
Cys Arg Pro Val Leu Thr Ser Val Ala Leu Asn Ala Asn Phe Val Ser
                                25
            20 .
Trp Lys Ser Arg Thr Lys Tyr Thr Ile Thr Pro Val Lys Met Arg Lys
Ser Gly Gly Arg Asp His Thr Gly Gly Asn Lys Asp Arg Gly Ile Xaa
<210> 392
<211> 19
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (19)
<223> Xaa equals stop translation
<400> 392
Met Arg Lys Gln Arg Leu Val Pro Met Tyr Leu Gly Leu Ile Tyr Ile
               5
Leu Leu Xaa
<210> 393
<211> 43
<212> PRT '
<213> Homo sapiens
<400> 393
Met Glu Ile Ser Val Ile Lys Ile Phe Gln Asp Glu Thr Thr Leu Lys
                                  10
Ile Lys Leu Cys Leu Val Ser Leu Ser Ser Leu Leu Val Ser Leu Leu
                                       . 30
            20
                                25
Leu Leu Ile Leu Pro Glu Ser Thr Ser Leu Trp
        35
                           40
<210> 394
<211> 17
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
<223> Xaa equals stop translation
```

10

Leu Leu Leu Pro Val Leu Ala Ser Ser Val Pro Ser His Ser Ala Thr

.5

Ser Pro Xaa Thr Xaa

20

```
Xaa
<210> 395
<211> 84
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (84)
<223> Xaa equals stop translation
<400> 395
Met Leu Pro Leu Leu Phe Thr Tyr Leu Asn Ser Phe Leu His Gln
Arg Ile Pro Gln Ser Val Arg Ile Leu Gly Ser Leu Val Ala Ile Leu
           20 25
Leu Val Phe Leu Ile Thr Ala Ile Leu Val Lys Val Gln Leu Asp Ala
 35 40
Leu Pro Phe Phe Val Ile Thr Met Ile Lys Ile Val Leu Ile Asn Ser
Phe Gly Ala Ile Leu Gln Gly Ser Leu Phe Gly Leu Ala Gly Leu Leu
                          75
                  70
Pro Ala Ser Xaa
<210> 396
<211> 21
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (21)
<223> Xaa equals stop translation
Met Lys Leu Ser Leu Phe Leu Ile Leu Ser Asp Val Phe Tyr Leu Gly
                                10
```

```
<210> 397
 <211> 29
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (29)
 <223> Xaa equals stop translation
 <400> 397
 Met Gly Thr Arg Arg Lys Gly Val Ala Trp Leu Ser Leu Ala Pro Leu
                                     10
 Ile Thr Gly Leu Ala Pro Ala His Ile Thr Ala Val Xaa
              20
 <210> 398
 <211> 34
- <212> PRT
 <213> Homo sapiens
<220>
 <221> SITE
 <222> (34)
 <223> Xaa equals stop translation
 <400> 398
 Met Lys Asp Leu Leu Gln Arg Asn Pro Trp Lys Asn Ser Leu Leu
 Leu Gln Val Cys Gln Ala Phe Leu Val Cys Ser Leu Thr Gln Leu Ala-
                             25
 Val Xaa
 <210>-399
<211> 47
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (47)
 <223> Xaa equals stop translation
 <400> 399
 Met Ser Glu Ser His Lys Ile Trp Trp Cys Tyr Arg His Leu Ala Phe
 Pro Leu Leu Thr Leu Ile Leu Tyr Pro Ala Thr Leu Gly Arg Ser Val
                                25
              20
```

Phe Cys His Asp Cys Lys Phe Pro Glu Ala Ser Pro Ala Met Kaa

```
40
<210> 400
<211> 25
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (25)
<223> Xaa equals stop translation
<400> 400
Met Leu Asn Arg Ile Met Val Ala Ser Phe Gly Ala Val Leu Val Gln
                           10
Val Cys Arg Gly Xaa Gly Gln Gly Xaa
    20
<210> 401
<211> 68
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (68)
<223> Kaa equals stop translation
<400> 401
Met Gln Leu Leu Leu Gly Leu Ile Arg Ser Gln Pro Ser Pro Pro
1
Pro Ser Leu Cys Leu Met Leu Cys Pro Cys Leu Pro Cys Leu Arg Tyr
Ser Pro Phe Val Pro Gln His Pro Cys Pro Leu Pro Leu Asp Leu Cys
         35
                            40
Leu Ala Gly Cys Ser Ser Leu Ser Val Gln Asp Lys Cys Ser Trp Pro
                        55
     50
Tyr Pro Ile Xaa
 65
<210> 402
<211> 85
<212> PRT
<213> Homo sapiens
```

<400> 402

Met Lys Asp Ser Leu Cys Arg Val Ser Phe Leu Lys Asn Gln Ile Phe 1 5 10 15

Leu Ser Tyr Ile Thr Leu Val Leu Ile Gly His Ala His Phe Ser Gly 20 25 30

Val Pro His Tyr Asn Val Ser Phe Val Leu Arg Ile Asn Leu Gln Lys $\cdot 35$ 40 45

His Leu Lys Ile Thr Thr Ser Asn Gly Ile Glu Ser Lys Lys Thr Gly 50 55 60

Glu Arg Gly Glu Thr Met Phe Phe Arg Thr Arg Gly Ser Thr His Ala 65 70 75 80

Ser Ala Asp Ala Trp
85

<210> 403

<211> 82

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 403

Met Gly Gly Ser Leu Leu Pro Gln Val Ser Ala Ala Val Leu Xaa Leu

1 5 10 15

Asp Gly Leu Leu Pro Gly Leu Lys Gly Cys Gly Pro Leu Arg Val 20 25 30

Ser Phe Pro Gln Ala Lys Phe Lys Ala Ala Ala Leu Cys Glu Ala Leu 35 40 45

Leu Ala Leu Gly Trp Arg Glu Asn Phe Lys Leu Phe Cys Ser Gln Gly 50 55 60

Arg Gly Met Gly Pro Gly Cys Arg Cys Pro His Ser Ala Asn Glu Ser
65 70 75 80

Phe Val

<210> 404

<211> 286

<212> PRT

<213> Homo sapiens

<400> 404

Met Ala Met Glu Gly Tyr Trp Arg Phe Leu Ala Leu Leu Gly Ser Ala

1				5					10					15	
Leu	Leu	Val	Gly 20	Phe	Leu	Ser	Val	Ile 25	Phe	Ala	Leu	Val	Trp 30	Val	Leu
His	Tyr	Arg 35	Glu	Gly	Leu	Gly	Trp 40	Asp	Gly	Ser	Ala	Leu 45	Glu	Phe	Asn
Trp	His 50	Pro	Val	Leu	Met	Val 55	Thr	Gly	Phe	Val`	Phe 60	Ile	Gln	Gly	Ile
Ala 65	Ile	Ile	Val	Tyr	Arg 70	Leu	Pro	Trp	Thr	Trp 75	Lys	Cys	Ser	Lys	Leu 80
Leu	Met	Lys	Ser	Ile 85	His	Ala	Gly	Leu	Asn 90	Ala	Val	Ala	Ala	Ile 95	Leu
Ala	Ile	Ile	Ser 100	Val	Val	Ala	Val	Phe 105	Glu	Asn	His	Asn	Val 110	Asn	Asn
Ile	Ala	Asn 115	Met	Tyr	Ser	Leu	His 120	Ser	Trp	Val	Gly	Leu 125	Ile	Ala	Vaļ
Ile	Cys 130	Tyr	Leu	Leu	Gln	Leu 135	Leu	Ser	Gly	Phe	Ser 140	Val	Phe	Leu	Leu
Pro 145	Trp	Ala	Pro	Leu	Ser 150	Leu	Arg	Ala	Phe	Leu 155	Met	Pro	Ile	His	Val 160
Tyr	Ser	Gly	Ile	Val 165	Ile	Phe	Gly	Thr	Val 170	Ile	Ala	Thr	Ala	Leu 175	Met
Gly	Leu	Thr	Glu 180	Lys	Leu	Ile	Phe	Ser 185	Leu	Arg	Asp	Pro	Ala 190	Tyr	Ser
Thr	Phe	Pro 195	Pro	Glu	Gly	Val	Phe 200	Val	Asn	Thr	Leu	Gly 205	Leu	Leu	Ile
	210		Gly			215					220				
Lys 225	Arg	Pro	Lys	Glu	Pro 230		Ser	Thr	Ile	Leu 235	His	Pro	Asn	Gly	Gly 240
Chr	Glu	Gln	Gly	Ala 245	Arg	Gly	Ser	Met	Pro 250	Ala	Tyr	Ser	Gly	Asn 255	Asn
ſet	Asp	Ĺys	Ser 260	Asp	Ser	Glu	Leu	Asn 265	Ser	Glu	Val	Ala	Ala 270	Arg	Lys
ırg	Asn	Leu 275	Ala	Leu	Asp	Glu	Ala 280	Gly	Gln	Arg	Ser	Thr 285	Met		

210> 405 211> 154 212> PRT 213> Homo sapiens

```
<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (103)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (110)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (121)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE :
<222> (123)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (126)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (134)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (154)
<223> Xaa equals stop translation
<400> 405
Met Thr Lys Ala Arg Leu Phe Arg Leu Trp Leu Val Leu Gly Ser Val
                                    1.0
Phe Met Ile Leu Leu Ile Ile Val Tyr Trp Asp Ser Ala Gly Ala Ala
                                 25
```

His Phe Tyr Leu His Thr Ser Phe Ser Arg Pro His Thr Gly Pro Pro 35 40 45

Leu Pro Thr Pro Gly Pro Asp Arg Asp Arg Glu Leu Thr Ala Asp Ser 50 55 60

Asp Val Asp Xaa Phe Leu Asp Xaa Phe Leu Ser Ala Gly Val Lys Gln 65 70 75 80

Ser Asp Xaa Pro Arg Lys Glu Thr Glu Gln Pro Pro Ala Pro Gly Ser 85 90 95

Met Glu Glu Ser Val Arg Xaa Tyr Asp Trp Ser Pro Arg Xaa Ala Arg 100 105 110

Arg Thr Gln Thr Arg Ala Gly Ser Xaa Arg Xaa Gly Gly Xaa Cys Cys 115 120 125

Gly Ala Ser Ala Pro Xaa Pro Ala Trp Pro Ser Pro Pro Arg Ser Ala 130 135 140

His Ser Thr Thr Ser Pro Thr Arg Ser Xaa 145 150

<210> 406

<211> 37

<212> PRT

<213> Homo sapiens

<400> 406

Met Leu Leu Ile Val Leu Val Ala Asn Ile Leu Ser Met Ser Asn 1 5 10 15

Met Ser Asn Ala Val Val Ser Asp Leu His Ile Leu Val His Leu Ile 20 25 30

Ser His Lys Ala Asn 35

<210> 407

<211> 60

<212> PRT

<213> Homo sapiens

<400> 407

Met Cys Ile His Val Phe Met Ser Val Leu Trp Val Leu Phe Leu Leu 1 5 10 15

Asn Pro Leu Cys Thr Gly Leu Trp Pro Leu Val Asn Cys Phe Ser Val 20 25 30

Leu Arg His Ala Asp Trp Val Leu Gly Ala Asp Tyr Lys Gly Glu Glu 35 40 45

Leu Asn Arg His Gln Gly Pro Met Lys Pro Lys Asp 50 55

<210> 408 <211> 447 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (447) <223> Xaa equals stop translation Met Leu Leu Gly Leu Leu Met Ala Ala Cys Phe Thr Phe Cys Leu Ser 10 His Gln Asn Leu Lys Glu Phe Ala Leu Thr Asn Pro Glu Lys Ser Ser Thr Lys Glu Thr Glu Arg Lys Glu Thr Lys Ala Glu Glu Leu Asp Ala Glu Val Leu Glu Val Phe His Pro Thr His Glu Trp Gln Ala Leu Gln Pro Gly Gln Ala Val Pro Ala Gly Ser His Val Arg Leu Asn Leu Gln Thr Gly Glu Arg Glu Ala Lys Leu Gln Tyr Glu Asp Lys Phe Arg Asn Asn Leu Lys Gly Lys Arg Leu Asp Ile Asn Thr Asn Thr Tyr Thr 100 105 Ser Gln Asp Leu Lys Ser Ala Leu Ala Lys Phe Lys Glu Gly Ala Glu 120 Met Glu Ser Ser Lys Glu Asp Lys Ala Arg Gln Ala Glu Val Lys Arg Leu Phe Arg Pro Ile Glu Glu Leu Lys Lys Asp Phe Asp Glu Leu Asn 150 Val Val Ile Glu Thr Asp Met Gln Ile Met Val Arg Leu Ile Asn Lys 165 Phe Asn Ser Ser Ser Ser Leu Glu Glu Lys Ile Ala Ala Leu Phe 185 Asp Leu Glu Tyr Tyr Val His Gln Met Asp Asn Ala Gln Asp Leu Leu 195 200 Ser Phe Gly Gly Leu Gln Val Val Ile Asn Gly Leu Asn Ser Thr Glu 215 Pro Leu Val Lys Glu Tyr Ala Ala Phe Val Leu Gly Ala Ala Phe Ser

235





Ser Asn Pro Lys Val Gln Val Glu Ala Ile Glu Gly Gly Ala Leu Gln 245 250 255

Lys Leu Leu Val Ile Leu Ala Thr Glu Gln Pro Leu Thr Ala Lys Lys 260 265 270

Lys Val Leu Phe Ala Leu Cys Ser Leu Leu Arg His Phe Pro Tyr Ala 275 280 285

Gln Arg Gln Phe Leu Lys Leu Gly Gly Leu Gln Val Leu Arg Thr Leu 290 295 300

Val Gln Glu Lys Gly Thr Glu Val Leu Ala Val Arg Val Val Thr Leu 305 310 315 320

Leu Tyr Asp Leu Val Thr Glu Lys Met Phe Ala Glu Glu Glu Ala Glu
325 330 335

Leu Thr Gln Glu Met Ser Pro Glu Lys Leu Gln Gln Tyr Arg Gln Val 340 345 350

His Leu Leu Pro Gly Leu Trp Glu Gln Gly Trp Cys Glu Ile Thr Ala 355 360 365

His Leu Leu Ala Leu Pro Glu His Asp Ala Arg Glu Lys Val Leu Gln 370 380

Thr Leu Gly Val Leu Leu Thr Thr Cys Arg Asp Arg Tyr Arg Gln Asp 385 390 395 400

Pro Gln Leu Gly Arg Thr Leu Ala Ser Leu Gln Ala Glu Tyr Gln Val 405 410 415

Leu Ala Ser Leu Glu Leu Gln Asp Gly Glu Asp Glu Gly Tyr Phe Gln 420 425 430

Glu Leu Leu Gly Ser Val Asn Ser Leu Leu Lys Glu Leu Arg Xaa 435 440 445

<210> 409

<211> 64

<212> PRT

<213> Homo sapiens

<400> 409

Met Leu Tyr Ser Asp Leu Lys Leu Val Arg Cys His Asn Gly Pro Val

His Val Ile Ser Val Tyr Thr Thr Pro Pro Asp Pro Ser Asn Pro Tyr 20 25 30

Asn Thr Pro Pro Leu Phe Ala Ser Cys Met Val Ile Ser Tyr Val Thr 35 . 40 45

Phe Thr Pro Val Ser Ala Asp Cys Phe Phe Asn Val Leu Val Cys Phe 50 55 60

```
<210> 410
<211> 24
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (24)
<223> Xaa equals stop translation
<400> 410
Glu Leu Leu Phe Leu Leu Ile Ile Ile Leu Gly Glu Ser Leu Ser Asp
        5
Val Ile Leu Leu Ile Cys Phe Xaa
            20
<210> 411
<211> 35
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (35)
<223> Xaa equals stop translation
<400> 411
Met Phe Tyr Trp Gly Gly Leu Ser Phe Tyr Phe Leu Leu Ser Ser Gly
Val Gly Phe Tyr Cys Phe Leu Phe Gly Phe Gly Met Glu Ile Trp Ile
            Ala Ala Xaa
<210> 412
<211> 41
<212> PRT
<213> Homo sapiens
Met Gly Lys Val Gly Trp Leu Met Val Gly Gly Val Ala Pro Gly Ile
Arg Gly Gly Trp Gly Trp Thr Leu Gly Ile Met Val Gly Gly Ala Ile
                               25
Ala His Cys Cys Cys Cys Leu Ile Arg
         35
```

```
<210> 413
<211> 25
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (25)
<223> Xaa equals stop translation
<400> 413
Met Lys Leu Ser Leu Leu Ile Leu Thr Leu Met Gln Arg Tyr Phe Arg
                           10 .
Thr Ile Thr Asn Ser Leu Cys Lys Xaa
            20
<210> 414
<211> 79
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (79)
<223> Xaa equals stop translation
<400> 414
Met Pro Ala Val Ser Gly Pro Gly Pro Leu Phe Cys Leu Leu Leu
                                    10
Leu Leu Asp Pro His Ser Pro Glu Thr Gly Cys Pro Pro Leu Arg Arg
Phe Glu Tyr Lys Leu Ser Phe Lys Gly Pro Arg Leu Ala Leu Pro Gly
. ' . 35
                            40
Ala Gly Ile Pro Phe Trp Ser His His Gly Gly Glu Gly Gln Gly Trp
Gly Pro Leu Cys Pro Gly Ser Leu Lys Val Leu Glu Gly Leu Xaa
                    70
<210> 415
<211> 51
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
```

130

145

```
<222> (28)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 415
Met His Tyr Leu Leu Lys Glu Cys Asp Ile Asp Thr Asp Ala Tyr Phe
                                     10
                                                         15
Phe Phe Phe Xaa Leu Leu Val Leu Phe Leu Pro Xaa Lys Tyr Ser Pro
Pro Phe Tyr Ser Ile Val Leu Phe Arg Trp Asn Asp Ser Tyr Lys Ile
Ser His Tyr
     50
<210> 416
<211> 257
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (100)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 416
Met Ala Ala Leu Thr Ser His Leu Gln Asn Gln Ser Asn Asn Ser Asn
                                     10
Trp Asn Leu Arg Thr Arg Ser Lys Cys Lys Lys Asp Val Phe Met Pro
Pro Ser Ser Ser Glu Leu Gln Glu Ser Arg Gly Leu Ser Asn Phe
                             40
Thr Ser Thr His Leu Leu Lys Glu Asp Glu Gly Val Asp Asp Val
Asn Phe Arg Lys Val Arg Lys Pro Lys Gly Lys Val Thr Ile Leu Lys
                   70
Gly Ile Pro Ile Lys Lys Thr Lys Lys Gly Cys Arg Lys Ser Cys Ser
Gly Phe Val Xaa Ser Asp Ser Lys Arg Glu Ser Val Cys Asn Lys Ala
            100
Asp Ala Glu Ser Glu Pro Val Ala Gln Lys Ser Gln Leu Asp Arg Thr
                            120
Val Cys Ile Ser Asp Ala Gly Ala Cys Gly Glu Thr Leu Ser Val Thr
```

135

150

Ser Glu Glu Asn Ser Leu Val Lys Lys Lys Glu Arg Ser Leu Ser Ser

Gly Ser Asn Phe Cys Ser Glu Gln Lys Thr Ser Gly Ile Ile Asn Lys 165 170 175

Phe Cys Ser Ala Lys Asp Ser Glu His Asn Glu Lys Tyr Glu Asp Thr 180 185 190

Phe Leu Glu Ser Glu Glu Ile Gly Thr Lys Val Glu Val Val Glu Arg 195 200 205

Lys Glu His Leu His Thr Asp Ile Leu Lys Arg Gly Ser Glu Met Asp 210 215 220

Asn Asn Cys Ser Pro Thr Arg Lys Asp Phe Thr Glu Asp Thr Ile Pro 225 230 235 240

Arg Asn Thr Asp Arg Lys Lys Glu Asn Lys Pro Val Phe Phe Gln Gln 245 250 255

Ile

<210> 417

<211> 424

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (144)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (263)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 417

Met Glu Lys Gln Cys Cys Ser His Pro Val Ile Cys Ser Leu Ser Thr 1 5 10 15

Met Tyr Thr Phe Leu Leu Gly Ala Ile Phe Ile Ala Leu Ser Ser Ser 20 25 30

Arg Ile Leu Leu Val Lys Tyr Ser Ala Asn Glu Glu Asn Lys Tyr Asp 35 40 45

Tyr Leu Pro Thr Thr Val Asn Val Cys Ser Glu Leu Val Lys Leu Val 50 60

Phe Cys Val Leu Val Ser Phe Cys Val Ile Lys Lys Asp His Gln Ser 65 70 75 80

Arg Asn Leu Lys Tyr Ala Ser Trp Lys Glu Phe Ser Asp Phe Met Lys 85 90 95

Trp Ser Ile Pro Ala Phe Leu Tyr Phe Leu Asp Asn Leu Ile Val Phe
100 105 110

Tyr Val Leu Ser Tyr Leu Gln Pro Ala Met Ala Val Ile Phe Ser Asn 115 120 Phe Ser Ile Ile Thr Thr Ala Leu Leu Phe Arg Ile Val Leu Lys Xaa 135 Arg Leu Asn Trp Ile Gln Trp Ala Ser Leu Leu Thr Leu Phe Leu Ser 155 150 145 Ile Val Ala Leu Thr Ala Gly Thr Lys Thr Leu Gln His Asn Leu Ala 170 Gly Arg Gly Phe His His Asp Ala Phe Phe Ser Pro Ser Asn Ser Cys '. 185 Leu Leu Phe Arg Asn Glu Cys Pro Arg Lys Asp Asn Cys Thr Ala Lys Glu Trp Thr Phe Pro Glu Ala Lys Trp Asn Thr Thr Ala Arg Val Phe 215 Ser His Ile Arg Leu Gly Met Gly His Val Leu Ile Ile Val Gln Cys 235 230 Phe Ile Ser Ser Met Ala Asn Ile Tyr Asn Glu Lys Ile Leu Lys Glu , 250 Gly Asn Gln Leu Thr Glu Xaa Ile Phe Ile Gln Asn Ser Lys Leu Tyr . 265 Phe Phe Gly Ile Leu Phe Asn Gly Leu Thr Leu Gly Leu Gln Arg Ser 280 Asn Arg Asp Gln Ile Lys Asn Cys Gly Phe Phe Tyr Gly His Ser Ala Phe Ser Val Ala Leu Ile Phe Val Thr Ala Phe Gln Gly Leu Ser Val 310 Ala Phe Ile Leu Lys Phe Leu Asp Asn Met Phe His Val Leu Met Ala 325 330 Gln Val Thr Thr Val Ile Ile Thr Thr Val Ser Val Leu Val Phe Asp 340 345 Phe Arg. Pro Ser Leu Glu Phe Phe Leu Glu Ala Pro Ser Val Leu Leu 365 Ser Ile Phe Ile Tyr Asn Ala Ser Lys Pro Gln Val Pro Glu Tyr Ala 375 Pro Arg Gln Glu Arg Ile Arg Asp Leu Ser Gly Asn Leu Trp Glu Arg 395 Ser Ser Gly Asp Gly Glu Glu Leu Glu Arg Leu Thr Lys Pro Lys Ser 410 405

65

```
Asp Glu Ser Asp Glu Asp Thr Phe 420
```

```
<210> 418
 <211> 33
 <212> PRT
<213> Homo sapiens
<220>
 <221> SITE
 <222> (33)
 <223> Xaa equals stop translation
<400> 418
 Met Trp Gly Gln Gly Ser Gln Lys Ser His Phe Ser Asp Leu Val Phe
  1
                  5 . .
 Gly Val Arg Glu Leu Cys Ala Gln Pro Ser Asp Pro Gly Ser Pro His
                                                    30
              20
                                 25
 Xaa
 <210> 419
 <211> 80
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (53)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (80)
 <223> Xaa equals stop translation
<400> 419
 Met Val Gln His Ile Gln Pro Ala Ala Leu Ser Leu Leu Ala Gln Trp
 Ser Thr Leu Val Gln Glu Leu Glu Ala Ala Leu Gln Leu Ala Phe Tyr
                                 25
              20
 Pro Asp Ala Val Glu Glu Trp Leu Glu Glu Asn Val His Pro Ser Leu
 Gln Arg Leu Gln Xaa Leu Leu Gln Asp Leu Ser Glu Val Ser Ala Pro
                 . 55 - 60.
 Pro Leu Pro Pro Thr Ser Pro Gly Arg Asp Val Ala Gln Asp Pro Xaa
```

70

```
<210> 420
 <211> 95
 <212> PRT
 <213> Homo sapiens
 <220> .
 <221> SITE
 <222> (82)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (83)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (95)
 <223> Xaa equals stop translation
 <400> 420
 Met Leu Asn Gln Gly Tyr Ile Arg Lys Ile Ile Leu Ile Ile Ile Leu
                            . 10
'Gly Ser Phe Ser Ser Pro Lys Lys Ala Ile Leu Met Gly Phe Gln Asn
                                 25
Gln Lys Lys Ala Leu Asn Glu Glu Gln Thr Thr Gly Val Pro Met Ser
                         40
 Ile Ser Gly Lys Leu Arg Pro Ser Arg Ser Leu Asp Phe Val Gln Pro
                         55
 Pro Arg Phe Gln Ser Gln Gln Pro Ser Ala Val Val Asp Arg Arg Gly
 Phe Xaa Xaa Lys Ala Ala Arg Gly Gln Glu Phe Ser Glu Ser Xaa
                  85
                                     90
 <210> 421
 <211> 257
 <212> PRT
 <213> Homo sapiens
 <400> 421
 Met Arg Gly Pro Ala Gln Ala Lys Leu Pro Gly Ser Ala Ile Gln
 Ala Leu Val Gly Leu Ala Arg Pro Leu Val Leu Ala Leu Leu Val
                                 25
             20
 Ser Ala Ala Leu Ser Ser Val Val Ser Arg Thr Asp Ser Pro Ser Pro
                             40
```

Thr Val Leu Asn Ser His Ile Ser Thr Pro Asn Val Asn Ala Leu Thr

50 55 60

His Glu Asn Gln Thr Lys Pro Ser Ile Ser Gln Ile Ser Thr Thr Leu 65 70 75 80

Pro Pro Thr Thr Ser Thr Lys Lys Ser Gly Gly Ala Ser Val Val Pro

His Pro Ser Pro Thr Pro Leu Ser Gln Glu Glu Ala Asp Asn Asn Glu

100 105 110

Asp Pro Ser Ile Glu Glu Glu Asp Leu Leu Met Leu Asn Ser Ser Pro 115 120 125

Ser Thr Ala Lys Asp Thr Leu Asp Asn Gly Asp Tyr Gly Glu Pro Asp 130 135 140

Tyr Asp Trp Thr Thr Gly Pro Arg Asp Asp Glu Ser Asp Asp Thr 145 150 155 160

Leu Glu Glu Asn Arg Gly Tyr Met Glu Ile Glu Gln Ser Val Lys Ser 165 170 175

Phe Lys Met Pro Ser Ser Asn Ile Glu Glu Glu Asp Ser His Phe Phe 180 185 190

Phe His Leu Ile Ile Phe Ala Phe Cys Ile Ala Val Val Tyr Ile Thr 195 200 205

Tyr His Asn Lys Arg Lys Ile Phe Leu Leu Val Gln Ser Arg Lys Trp 210 215 220

Arg Asp Gly Leu Cys Ser Lys Thr Val Glu Tyr His Arg Leu Asp Gln 225 230 235 240

Asn Val Asn Glu Ala Met Pro Ser Leu Lys Ile Thr Asn Asp Tyr Ile 245 250 255

Phe

<210> 422

<211> 704

<212> PRT

<213> Homo sapiens

<400> 422

Met Trp Tyr Arg Leu Arg Leu Leu Lys Pro Gln Pro Asn Ile Ile Pro 1 5 10

Thr Val Lys Lys Ile Val Leu Leu Ala Gly Trp Ala Leu Phe Leu Phe 20 25 30

Leu Ala Tyr Lys Val Ser Lys Thr Asp Arg Glu Tyr Gln Glu Tyr Asn 35 . 40 45

Pro Tyr Glu Val Leu Asn Leu Asp Pro Gly Ala Thr Val Ala Glu Ile

	·
50 55	60
Lys Lys Gln Tyr Arg Leu Leu Ser 65 70	
Gly Asp Glu Val Met Phe Met Arg	Ile Ala Lys Ala Tyr Ala Ala Leu 90 95
100	Trp Glu Glu Phe Gly Asn Pro Asp 105
115	
130	Leu Leu Val Tyr Gly Leu Ala Phe 140
1/15	I Gly Ser Trp Trp Tyr Arg Ser Ile 155
. 100	u Ile Arg Thr Thr Gln Ile Tyr Thr 170
180	n Met Asp Met Lys Arg Leu Ile Met 185
195	
210	Le Leu Ile Pro Gln Leu Ile Arg Glu 220
225	ys Asn Glu Pro Pro Leu Thr Cys Pro 235
. 245	eu Leu Leu Ser His Leu Ala Arg Met 250 255
260	lu Asp Gln Gln Phe Met Leu Lys Lys 265
275	Met Val Asn Val Ile Cys Gln Leu Ile 280
290	Glu Arg Glu Phe Arg Ala Pro Thr Leu 300
305	Lys Leu Ser Gln Met Ala Val Gln Gly 315
323	Leu Leu Gln Leu Pro His Ile Glu Glu 330
340	Asn His Lys Lys Tyr Lys Ile Lys Thr 345
Ile Gln Asp Leu Val Ser Leu 355	Lys Glu Ser Asp Arg His Thr Leu Leu 360

His Phe Leu Glu Asp Glu Lys Tyr Glu Glu Val Met Ala Val Leu Gly 3.75 Ser Phe Pro Tyr Val Thr Met Asp Ile Lys Ser Gln Val Leu Asp Asp 390 395 Glu Asp Ser Asn Asn Ile Thr Val Gly Ser Leu Val Thr Val Leu Val 405 410 Lys Leu Thr Arg Gln Thr Met Ala Glu Val Phe Glu Lys Glu Gln Ser 425 Ile Cys Ala Ala Glu Glu Gln Pro Ala Glu Asp Gly Gln Gly Glu Thr 435 440 Asn Lys Asn Arg Thr Lys Gly Gly Trp Gln Gln Lys Ser Lys Gly Pro 455 Lys Lys Thr Ala Lys Ser Lys Lys Lys Pro Leu Lys Lys Pro 470 475 Thr Pro Val Leu Leu Pro Gln Ser Lys Gln Gln Lys Gln Lys Gln Ala 490. Asn Gly Val Val Gly Asn Glu Ala Val Lys Glu Asp Glu Glu Glu 500 505 Val Ser Asp Lys Gly Ser Asp Ser Glu Glu Glu Glu Thr Asn Arg Asp 520 . 515 Ser Gln Ser Glu Lys Asp Asp Gly Ser Asp Arg Asp Ser Asp Arg Glu 535 Gln Asp Glu Lys Gln Asn Lys Asp Asp Glu Ala Glu Trp Gln Glu Leu Gln Gln Ser Ile Gln Arg Lys Glu Arg Ala Leu Leu Glu Thr Lys Ser 565 57.0 Lys Ile Thr His Pro Val Tyr Ser Leu Tyr Phe Pro Glu Glu Lys Gln Glu Trp Trp Leu Tyr Ile Ala Asp Arg Lys Glu Gln Thr Leu Ile 600 Ser Met Pro Tyr His Val Cys Thr Leu Lys Asp Thr Glu Glu Val Glu 620 610 615 Leu Lys Phe Pro Ala Pro Gly Lys Pro Gly Asn Tyr Gln Tyr Thr Val 630 Phe Leu Arg Ser Asp Ser Tyr Met Gly Leu Asp Gln Ile Lys Pro Leu 650 Lys Leu Glu Val His Glu Ala Lys Pro Val Pro Glu Asn Hiş Pro Gln 665

Trp Asp Thr Ala Ile Glu Gly Asp Glu Asp Gln Glu Asp Ser Glu Gly 675 680 685

Phe Glu Asp Ser Phe Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Asp 690 695 700

<210> 423

<211> 190

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 423

Met Lys Ala Ser Gln Cys Cys Cys Cys Leu Ser His Leu Leu Ala Ser 1 5 10 15

Val Leu Leu Leu Leu Leu Pro Glu Leu Ser Gly Xaa Leu Xaa Val 20 25 30

Leu Leu Gln Ala Ala Glu Ala Ala Pro Gly Leu Gly Pro Pro Asp Pro 35 40 45

Arg Pro Arg Thr Leu Pro Pro Leu Pro Pro Gly Pro Thr Pro Ala Gln 50 55 60

Gln Pro Gly Arg Gly Leu Ala Glu Ala Ala Gly Pro Arg Gly Ser Glu
65 70 75 80

Gly Gly Asn Gly Ser Asn Pro Val Ala Gly Leu Glu Thr Asp Asp His
85 90 95

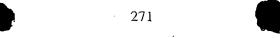
Gly Gly Lys Ala Gly Glu Gly Ser Val Gly Gly Gly Leu Ala Val Ser 100 105 110

Pro Asn Pro Gly Asp Lys Pro Met Thr Gln Arg Ala Leu Thr Val Leu 115 120 125

Met Val Val Ser Gly Ala Val Leu Val Tyr Phe Val Val Arg Thr Val 130 135 140

Arg Met Arg Arg Arg Asn Arg Lys Thr Arg Arg Tyr Gly Val Leu Asp 145 150 155 160

Thr Asn Ile Glu Asn Met Glu Leu Thr Pro Leu Glu Gln Asp Asp Glu 165 170 175 أصلة:



Asp Asp Asp Asn Thr Leu Phe Asp Ala Asn His Pro Arg Arg 180 185 190

<210> 424

<211> 179

<212> PRT

<213> Homo sapiens

<220>

<221> SITE . .

<222> (179)

<223> Xaa equals stop translation

<400> 424

Met Ser Pro Ser Gly Arg Leu Cys Leu Leu Thr Ile Val Gly Leu Ile 1 5 10 15

Leu Pro Thr Arg Gly Gln Thr Leu Lys Asp Thr Thr Ser Ser Ser Ser 20 25 30

Ala Asp Ser Thr Ile Met Asp Ile Gln Val Pro Thr Arg Ala Pro Asp 35 40 45

Ala Val Tyr Thr Glu Leu Gln Pro Thr Ser Pro Thr Pro Thr Trp Pro
50 55 60

Ala Asp Glu Thr Pro Gln Pro Gln Thr Gln Thr Gln Gln Leu Glu Gly
65 70 75 80

Thr Asp Gly Pro Leu Val Thr Asp Pro Glu Thr His Lys Ser Thr Lys 85 90 95

Ala Ala His Pro Thr Asp Asp Thr Thr Thr Leu Ser Glu Arg Pro Ser 100 105 110

Pro Ser Thr Asp Val Gln Thr Asp Pro Gln Thr Leu Lys Pro Ser Gly 115 120 125

Phe His Glu Asp Asp Pro Phe Phe Tyr Asp Glu His Thr Leu Arg Lys
130 135 140

Arg Gly Leu Leu Val Ala Ala Val Leu Phe Ile Thr Gly Ile Ile Ile 145 150 150

Leu Thr Ser Gly Lys Cys Arg Gln Leu Ser Arg Leu Cys Arg Asn His 165 170 175

Cys Arg Xaa

<210> 425

<211> 40

<212> PRT

<213> Homo sapiens



<400> 425

Met Phe Lys Cys Leu Gln Thr Thr Phe Leu Phe Ile Leu Asp Phe Thr
1 5 10 15

Trp Glu Ser Lys Val Gln Phe His Lys Ala Ser Val Tyr Leu Ser Leu 20 25 30

Ser Ile Tyr Ile Asp Cys His Ala 35 40

<210> 426

<211> 232

<212> PRT

<213> Homo sapiens

<400> 426

Met Leu Ala Gly Lys Leu Ile Pro Val His Gln Val Arg Gly Leu Lys
1 5 10 15

Glu Lys Ile Val Arg Ser Phe Glu Val Ser Pro Asp Gly Ser Phe Leu 20 25 30

Leu Ile Asn Gly Ile Ala Gly Tyr Leu His Leu Leu Ala Met Lys Thr 35 40 45

Lys Glu Leu Ile Gly Ser Met Lys Ile Asn Gly Arg Val Ala Ala Ser 50 55 60

Thr Phe Ser Ser Asp Ser Lys Lys Val Tyr Ala Ser Ser Gly Asp Gly 65 70 75 80

Glu Val Tyr Val Trp Asp Val Asn Ser Arg Lys Cys Leu Asn Arg Phe 85 90 95

Val Asp Glu Gly Ser Leu Tyr Gly Leu Ser Ile Ala Thr Ser Arg Asn 100 105 110

Gly Gln Tyr Val Ala Cys Gly Ser Asn Cys Gly Val Val Asn Ile Tyr 115. 120 125

Asn Gln Asp Ser Cys Leu Gln Glu Thr Asn Pro Lys Pro Ile Lys Ala 130 135 140

Ile Met Asn Leu Val Thr Gly Val Thr Ser Leu Thr Phe Asn Pro Thr 145 150 155.

Thr Glu Ile Leu Ala Ile Ala Ser Glu Lys Met Lys Glu Ala Val Arg 165 170 175

Leu Val His Leu Pro Ser Cys Thr Val Phe Ser Asn Phe Pro Val Ile 180 185 190

Lys Asn Lys Asn Ile Ser His Val His Thr Met Asp Phe Ser Pro Arg 195 200 205

Ser Gly Tyr Phe Ala Leu Gly Asn Glu Lys Gly Lys Ala Leu Met Tyr 210 215 220

Arg Leu His His Tyr Ser Asp Phe 225 230

<210> 427

<211> 250

<212> PRT

<213> Homo sapiens

<400> 427

Met Arg Ile Leu Gln Leu Ile Leu Leu Ala Leu Ala Thr Gly Leu Val 1 5 10 15

Gly Gly Glu Thr Arg Ile Ile Lys Gly Phe Glu Cys Lys Pro His Ser 20 25 30

Gln Pro Trp Gln Ala Ala Leu Phe Glu Lys Thr Arg Leu Leu Cys Gly 35 40 45

Ala Thr Leu Ile Ala Pro Arg Trp Leu Leu Thr Ala Ala His Cys Leu 50 60

Lys Pro Arg Tyr Ile Val His Leu Gly Gln His Asn Leu Gln Lys Glu 65 70 75 80

Glu Gly Cys Glu Gln Thr Arg Thr Ala Thr Glu Ser Phe Pro His Pro 85 90 95

Gly Phe Asn Asn Ser Leu Pro Asn Lys Asp His Arg Asn Asp Ile Met 100 105 110

Leu Val Lys Met Ala Ser Pro Val Ser Ile Thr Trp Ala Val Arg Pro 115 120 125

Leu Thr Leu Ser Ser Arg Cys Val Thr Ala Gly Thr Ser Cys Leu Ile 130 135 140

Ser Gly Trp Gly Ser Thr Ser Ser Pro Gln Leu Arg Leu Pro His Thr 145 150 155 160

Leu Arg Cys Ala Asn Ile Thr Ile Ile Glu His Gln Lys Cys Glu Asn 165 170 175

Ala Tyr Pro Gly Asn Ile Thr Asp Thr Met Val Cys Ala Ser Val Gln 180 185 190

Glu Gly Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val 195 200 205

Cys Asn Gln Ser Leu Gln Gly Ile Ile Ser Trp Gly Gln Asp Pro Cys 210 215 220

Ala Ile Thr Arg Lys Pro Gly Val Tyr Thr Lys Val Cys Lys Tyr Val 225 230 235 240

Asp Trp Ile Gln Glu Thr Met Lys Asn Asn 245 250

<210> 428 <211> 58 <212> PRT <213> Homo sapiens <400> 428 Met Trp Thr Lys Asn Asp Lys Leu Lys Lys Phe Phe Leu Arg Tyr 10 Leu Gln Asn Met Val Tyr Phe Tyr Val Glu Lys Lys Ser Tyr Glu Gly - 25 20 Ser Cys Tyr Phe Lys Arg Lys Phe Ile Lys Ser Pro Arg Gly Met Lys 40 Met Thr Ala Cys Phe Ser Ile Ile Leu Ala 55 50. <210> 429 <211> 219 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (61) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (105) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (117) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (219) <223> Xaa equals stop translation Met Ala Val Val Leu Leu Ala Asn Leu Ala Gln Gly Asp Ser Leu Ala Ala Arg Ala Ile Ala Val Gln Lys Gly Ser Ile Gly Asn Leu Leu Gly 25 Phe Leu Glu Asp Ser Leu Ala Ala Thr Gln Phe Gln Gln Ser Gln Ala 35 Ser Leu Leu His Met Gln Asn Pro Pro Phe Glu Pro Xaa Ser Val Asp

55

Met Met Arg Arg Ala Ala Arg Ala Leu Leu Ala Leu Ala Lys Val Asp 70

Glu Asn His Ser Glu Phe Thr Leu Tyr Glu Ser Arg Leu Leu Asp Ile 90 85

Ser Val Ser Pro Leu Met Asn Ser Xaa Val Ser Gln Val Ile Cys Asp 105 100

Val Leu Phe Leu Xaa Trp Pro Val Met Thr Ala Val Gly His Leu Pro 120 125 115

Pro Pro Cys Val Cys Ala Cys Val Glu Asn Leu Glu Thr Asp Cys Cys 130

Pro Leu Phe Met Gln Asn His Leu Arg Ile Gln Phe Thr Leu Cys Cys 155 · 150

Pro Ala Ser Pro Leu Gly Lys Ser Leu Ser Cys Phe Ser Leu Leu 170 165

Pro Pro Pro Leu Pro Pro Ser Pro His Ala Phe Leu Phe Leu Val Leu 185

Thr Leu Leu Pro Ser Gly Pro Tyr Pro Thr Leu Phe Glu Lys Thr Lys 200 205

Leu Cys Leu His Arg Arg Leu Phe Leu Phe Xaa 210 215

<210> 430.

<211> 51

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (51)

<223> Xaa equals stop translation

Met Leu Pro Asp Glu Ser Phe Gly Leu Leu Leu Ser Ile Pro Ser Leu

Thr Pro Ser Ala Ala Ala Pro Ser Phe Cys Val His Leu Met Gln Ala 20

Ser Arg Ser Ser Lys Arg Ala Ser His Val Pro Val His Leu Leu Trp

Gly Asp Xaa 50

<210> 431

<211> 50

```
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (50)
<223> Xaa equals stop translation
<400> 431
Met Arg Pro Gly Ser Phe Ser Phe Ile Ala Phe Leu Ala Thr Glu Val
Ser Ser Cys Phe Pro Gly Arg Pro Asp Cys Xaa Thr Gly Met Trp Leu
                                  25
Leu Gln Leu Gln Lys Lys Gln Arg Thr Leu Leu Ala Met Ala Pro Arg
                              40
Arg Xaa
     50
<210> 432
<211> 70
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (39)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (70)
<223> Xaa equals stop translation
<400> 432
Asp Arg Pro Cys Pro Ser Ser Leu Trp Lys Val Phe Pro Leu Leu Leu
                                    10
Leu Leu Met Arg Leu Phe Pro Leu Pro Val Pro Gly Asn Gln Arg Ala
                                 25
```

Xaa Leu Pro His Pro Phe Xaa Ala Pro Arg Leu Pro Cys Leu Leu Cys 35 40 45

Leu Cys Thr Gln Gln Phe Xaa Val Cys Ser His Tyr Leu Pro Ala Gly 50 55 60

Tyr Arg Val Asn Ser Xaa 65 70

<210> 433

<211> 40

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (40)

<223> Xaa equals stop translation

<400> 433

Met His Glu Lys Ala Trp Asn Leu Ile Leu Leu Trp Trp Leu Ser Leu
1 5 10 15

Asp Leu Leu Gly Val Ala Lys Thr Ala Met Trp Ala Gln Trp Cys Gly 20 25 30

Leu Asn Asp His Lys Gly Lys Xaa 35 40

<210> 434

<211> 104

<212> PRT

<213> Homo sapiens

<400> 434

Met Ala Phe Val Leu Leu Phe Cys Phe Val Gly Leu Gln Ser Ser Arg
1 5 10 15

Ala Gly Pro Tyr Ser Glu Leu Val Leu Cys Gln Thr Pro Ala Ser Ala 20 25 30

Pro Asp Pro Val Ser Thr Leu Cys Val Leu Glu Glu Glu Pro Leu Asp

Ala Tyr Pro Asp Ser Pro Ser Ala Cys Leu Val Leu Asn Trp Glu Glu 50 55 60

Pro Cys Asn Asn Gly Ser Glu Ile Leu Ala Tyr Thr Ile Asp Leu Gly 65 70 75 80

Asp Thr Ser Ile Thr Val Gly Asn Thr Thr Met His Val Met Lys Asp 85 90 95

Leu Leu Pro Glu Thr Thr Tyr Arg 100

```
<210> 435
<211> 38
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (38)
<223> Xaa equals stop translation
<400> 435
Met Phe Ser Leu Leu Trp Leu Val Cys Val Pro Ser Asn Ser Ser Val
                                   10
. 1
Ala Asn Val Thr Ala Ser Arg Gly Gly Val Phe Lys Arg Ser Leu Gly
                                25
            20
His Glu Gly Phe Ser Xaa
35
<210> 436
<211> 35
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (35)
<223> Xaa equals stop translation
<400> 436
Lys Trp Leu Leu Phe Ile Phe Leu Leu Cys Leu Gln Leu Val Asn Ala
                                   10
       . 5
 1
Leu Leu Ser Leu Phe Gln Glu Arg Phe Val His Cys Pro Ala Arg Phe
                                25
Val Ser Xaa
     35
<210> 437
<211> 32
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (32)
<223> Xaa equals stop translation
<400> 437
Met Leu Leu Phe Leu Ser Ile Thr Asn Ser Leu Ser Phe Ile Ser Val
                                   10
                  5
```

Asp Lys Pro Phe Gly Gln Ser Glu Asp Val Cys Pro Val Ile Ser Xaa 20 25 30

```
<210> 438
<211> 127
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (127)
<223> Xaa equals stop translation
<400> 438
Met Glu Phe Leu Phe Asn Lys Thr Gly Trp Ala Phe Ala Ala Leu Cys
Phe Val Leu Ala Met Thr Ser Gly Gln Met Trp Asn His Ile Arg Gly
                             25
Pro Pro Tyr Ala His Lys Asn Pro His Thr Gly His Val Asn Tyr Ile
   35
               4.0
His Gly Ser Ser Gln Ala Gln Phe Val Ala Glu Thr His Ile Val Leu
                     55
Leu Phe Asn Gly Gly Val Thr Leu Gly Met Val Leu Cys Glu Ala
                  70
Ala Thr Ser Asp Met Asp Ile Gly Lys Arg Lys Ile Met Cys Val Ala
                                 90 95
Gly Ile Gly Leu Val Val Leu Phe Phe Ser Trp Met Leu Ser Ile Phe
           100
               105 110
Arg Ser Lys Tyr His Gly Tyr Pro Tyr Ser Phe Leu Met Ser Xaa
                         120
<210> 439
<211> 69
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (69)
<223> Xaa equals stop translation
```

```
<400> 439
Met Thr Trp His Ser Arg Glu Ser Phe Xaa Leu Leu Arg Val Val Ala
Pro Ser Gln Ala Pro Gly Met Gln Val Ser Pro Ser Gln Arg Ala Trp
                                25
Arg Arg Pro Leu His Arg Cys His Val Ala Ala Pro Arg Pro His His
Phe Ala Phe Phe Arg Asn Pro Phe Ser Trp Ser Phe Ile Lys Leu Leu
                        55
Tyr Arg Tyr Leu Xaa
 65
<210> 440
<211> 92
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (92)
<223> Xaa equals stop translation
<400> 440
Met Gly Leu Lys Leu Asn Gly Arg Tyr Ile Ser Leu Ile Leu Ala Val
Gln Ile Ala Tyr Leu Val Gln Ala Val Arg Ala Ala Gly Lys Cys Asp
                                25
Ala Val Phe Lys Gly Phe Ser Asp Cys Leu Leu Lys Leu Gly Asp Thr
                            40
Trp Pro Thr Thr Arg Ser Leu Gly Arg Gln Asp Glu His Gln Asp Arg
Val His Ile Leu Gly Gly Phe Pro Gln Leu His Gly His Ser Pro Tyr
                    70
                        65
Gly Leu Pro Gly Arg Gly Glu Arg Tyr Val Gly Xaa
           * - 85
<210> 441
<211> 380
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (264)
<223> Xaa equals any of the naturally occurring L-amino acids
<2.20>
```

<221> SITE

<222> (296)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (380)

<223> Xaa equals stop translation

<400> 441

Met Ala Arg Arg Ser Ala Phe Pro Ala Ala Ala Leu Trp Leu Trp Ser 1 5 10 15

Ile Leu Cys Leu Leu Ala Leu Arg Ala Glu Ala Gly Pro Pro Gln 20 25 30

Glu Glu Ser Leu Tyr Leu Trp Ile Asp Ala His Gln Ala Arg Val Leu 35 40 45

Ile Gly Phe Glu Glu Asp Ile Leu Ile Val Ser Glu Gly Lys Met Ala 50 55 60

Pro Phe Thr His Asp Phe Arg Lys Ala Gln Gln Arg Met Pro Ala Ile 65 70 75 80

Pro Val Asn Ile His Ser Met Asn Phe Thr Trp Gln Ala Ala Gly Gln 85 90 95

Ala Glu Tyr Phe Tyr Glu Phe Leu Ser Leu Arg Ser Leu Asp Lys Gly
100 105 110

Ile Met Ala Asp Pro Thr Val Asn Val Pro Leu Leu Gly Thr Val Pro
115 120 125

His Lys Ala Ser Val Val Gln Val Gly Phe Pro Cys Leu Gly Lys Gln 130 135 140

Asp Gly Val Ala Ala Phe Glu Val Asp Val Ile Val Met Asn Ser Glu 145 150 155 160

Gly Asn Thr Ile Leu Gln Thr Pro Gln Asn Ala Ile Phe Phe Lys Thr 165 170 175

Cys Gln Gln Ala Glu Cys Pro Gly Gly Cys Arg Asn Gly Gly Phe Cys 180 185 190

Asn Glu Arg Arg Ile Cys Glu Cys Pro Asp Gly Phe His Gly Pro His 195 200 205

Cys Glu Lys Ala Leu Cys Thr Pro Arg Cys Met Asn Gly Gly Leu Cys 210 215 220

Val Thr Pro Gly Phe Cys Ile Cys Pro Pro Gly Phe Tyr Gly Val Asn 225 230 235 240

Cys Asp Lys Ala Asn Cys Ser Thr Thr Cys Phe Asn Gly Gly Thr Cys 245 250 255

```
Phe Tyr Pro Gly Lys Cys Ile Xaa Pro Pro Gly Leu Glu Gly Glu Gln
        260 . 265
Cys Glu Ile Ser Lys Cys Pro Gln Pro Cys Arg Asn Gly Gly Lys Cys
Ile Gly Lys Ser Lys Cys Lys Xaa Ser Lys Gly Tyr Gln Gly Asp Leu
                295
Cys Ser Lys Pro Val Cys Glu Pro Gly Cys Gly Ala His Gly Thr Cys
His Glu Pro Asn Lys Cys Gln Cys Gln Glu Gly Trp His Gly Arg His
                                   330 .
Cys Asn Lys Arg Tyr Glu Ala Ser Leu Ile His Ala Leu Arg Pro Ala
            340
                   345
Gly Ala Gln Leu Arg Gln His Thr Pro Ser Leu Lys Lys Ala Glu Glu
                                       365
                           360
Arg Arg Asp Pro Pro Glu Ser Asn Tyr Ile Trp Xaa
                       375
<210> 442
<211> 24
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (24)
<223> Xaa equals stop translation
<400> 442
Met Thr Ser Asn Leu Leu Leu Leu Thr Leu Leu Leu Lys Asp Thr Leu
                                                       15
                                   10 ·
Xaa Leu Ala Lys Xaa Asn Xaa Xaa
```

```
<210> 443
 <211> 47
 <212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (33)
<223> Kaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (47)
<223> Xaa equals stop translation
<400> 443
Met Arg His His Thr Gln Leu Asn Phe Ile Phe Leu Val Glu Met Val
Phe Leu His Val Gly Gln Ala Gly Leu Lys Leu Pro Thr Ser Gly Asp
                25 30
             20
Xaa Ala Cys Phe Gly Leu Pro Lys Val Leu Gly Leu Gln Ala Xaa
<210> 444
<211> 214
<212> PRT
<213> Homo sapiens
<400> 444
Met Gln Val Thr Ile Thr Leu Thr Ser Pro Ile Ile Arg Glu Glu Asn
                 5
                                   10
Met Arg Glu Gly Asp Val Thr Ser Gly Met Val Lys Asp Pro Pro Asp
                                25
Val Leu Asp Arg Gln Lys Cys Leu Asp Ala Leu Ala Leu Arg His
    35
Ala Lys Trp Phe Gln Ala Arg Ala Asn Gly Leu Gln Ser Cys Val Ile
Ile Ile Arg Ile Leu Arg Asp Leu Cys Gln Arg Val Pro Thr Trp Ser
Asp Phe Pro Ser Trp Ala Met Glu Leu Leu Val Glu Lys Ala Ile Ser
                 85
Ser Ala Ser Ser Pro Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe
            100
                               105
                                                  110
Glu Cys Ile Ser Ser Gly Ile Ile Leu Lys Gly Ser Pro Gly Leu Leu
Asp Pro Cys Glu Lys Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp
                       135
```

Gln Gln Arg Glu Asp Ile Thr Ser Ser Ala Gln Phe Ala Leu Arg Leu 145 150 155 160

Leu Ala Phe Arg Gln Ile His Lys Val Leu Gly Met Asp Pro Leu Pro 165 170 175

Gln Met Ser Gln Arg Phe Asn Ile His Asn Asn Arg Lys Arg Arg Arg 180 185 190

Asp Ser Asp Gly Val Asp Gly Phe Glu Ala Glu Gly Lys Lys Asp Lys
195 200 205

Lys Asp Tyr Asp Asn Phe 210

<210> 445

<211> 144

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (144)

<223> Xaa equals stop translation

<400> 445

Leu Leu Ser Ile Leu Leu Cys Leu Leu Ala Ser Gly Leu Val Val Phe 1 5 10 15

Phe Leu Phe Pro His Ser Val Leu Val Asp Asp Asp Gly Ile Lys Val 20 25 30

Val Lys Val Thr Phe Asn Lys Gln Asp Ser Leu Val Ile Leu Thr Ile 35 40 45

Met Ala Thr Leu Lys Ile Arg Asn Ser Asn Phe Tyr Thr Val Ala Val 50 55 60

Thr Ser Leu Ser Ser Gln Ile Gln Tyr Met Asn Thr Val Val Asn Phe
65 70 75 80

Thr Gly Lys Ala Glu Met Gly Gly Pro Phe Ser Tyr Val Tyr Phe Phe 85 90 95

Cys Thr Val Pro Glu Ile Leu Val His Asn Ile Val Ile Phe Met Arg 100 105 110

Thr Ser Val Lys Ile Ser Tyr Ile Gly Leu Met Thr Gln Ser Ser Leu 115 120 125

Glu Thr His His Tyr Val Asp Cys Gly Gly Asn Ser Thr Ala Ile Xaa 130 . 135 140

```
<210> 446
<211> 37 ·
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (37)
<223> Xaa equals stop translation
<400> 446 .
Met Phe Phe Leu Tyr Val Tyr Ser Val Leu Cys Gly Leu Leu Val
                      10
Tyr Pro Ser Leu Pro Ser His Ser Val Ser Leu Val Thr Ser Leu Val
  20
                   - 25
Ala Ser Ala Leu Xaa
    35
<210> 447
<211> 37
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (37)
<223> Xaa equals stop translation
<400> 447
Met Ala Ser Ile Asn Ala Val Tyr Ile His Val Phe Leu Gly Val Cys
       . 5
                                 10
Val Gln Ala Thr Ala Ala Cys Pro Trp Cys Ser Gln Cys Arg Xaa Gly
         20
Ser Val Pro Ser Xaa
        35
<210> 448
<211> 192
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (47)
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>
<221> SITE
<222> (192)
<223> Xaa equals stop translation
<400> 448
Met Met Ala Ala Met Val Leu Thr Ser Leu Ser Cys Ser Pro Val Val
Gin Ser Pro Pro Gly Thr Glu Ala Asn Phe Ser Ala Ser Arg Ala Ala
                                 25
Cys Asp Pro Trp Lys Glu Ser Gly Asp Ile Ser Asp Ser Gly Xaa Ser
Thr Thr Ser Gly His Trp Ser Gly Ser Ser Gly Val Ser Thr Pro Ser
                         55
Pro Pro His Pro Gln Ala Ser Pro Lys Tyr Leu Gly Asp Ala Phe Gly
                                         75
                     70
Ser Pro Gln Thr Asp His Gly Phe Glu Thr Asp Pro Asp Pro Phe Leu
                 85
Leu Asp Glu Pro Ala Pro Arg Lys Arg Lys Asn Ser Val Lys Val Met
            100
                                105
Tyr Lys Cys Leu Trp Pro Asn Cys Gly Lys Val Leu Arg Ser Ile Val
        115
                            120
Gly Ile Lys Arg His Val Lys Ala Leu His Leu Gly Asp Thr Val Asp
                        135
```

Gln Ser Leu Gly Leu Pro Pro Pro Ser Gln Leu Pro Pro Pro Ala Xaa 180 185 190

Ser Asp Gln Phe Lys Arg Glu Glu Asp Phe Tyr Tyr Thr Glu Val Gln

Leu Lys Glu Glu Ser Ala Ala Ala Ala Ala Ala Ala Ala Ala Asp Pro

```
<210> 449
<211> 31
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (31)
<223> Xaa equals stop translation
<400> 449
```

Met Ser Thr Asn Tyr Leu Thr Asp Val Cys Ser Leu Phe Ser Tyr Leu

```
10
Asn Tyr Leu Tyr Phe His His His Leu Pro Val Pro Asn Thr Xaa
                               25 ·
             20
<210> 450
 <211> 101
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (77)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (78)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (101)
<223> Xaa equals stop translation
<400> 450
Met Gly Phe Phe Phe Val Leu Phe Phe Leu Tyr Leu Ala Leu Ser Arg
                                    10
Asp Trp Ser Ile Asn Phe Leu Lys Asp His Arg Ile Asn Phe Phe Val
             20
Ala Thr Ser Tyr Phe Ser Val Tyr Val Arg Gly Xaa Pro Xaa Val Pro
                             40
Ala Asp Thr Pro Leu Gly Pro Leu Leu Ser Leu Trp Leu His His Asn
     50
                                            60
                         55
Ala Phe Phe Ser Ile Leu Pro Lys Phe Pro Glu Asn Xaa Xaa Phe Leu
                                  . 75
 65
Ile Leu Lys Lys Leu Val Val Glu Met Gly Trp Asp Leu Phe Ile Ser
                                    90
Pro Glu Asn Lys Xaa
```

100

```
<210> 451
 <211> 37
 <212> PRT
 <213> Homo sapiens
 <220>
. <221> SITE
 <222> (37)
 <223> Kaa equals stop translation
 <400> 451
 Met Ala Arg Tyr Phe Ile Phe Phe Ile Leu Val Phe Met Lys Val Ser
 Leu Asn Thr Trp Pro Ala Pro Arg Pro Ala Thr Leu Arg Thr Ala
 20 25
 Asn Lys Ser Lys Xaa
        35
 <210> 452
 <211> 42
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (42)
 <223> Xaa equals stop translation
 <400> 452
 Phe Ser Thr Ile Arg Ser Gly Leu Thr Asp Arg Ser Val Asn Phe Leu
        , 5 -
                                  10
 Phe Leu Phe Leu Asp Val Pro Asp Cys Arg Leu Val Asn Ile Glu Leu
                     . 25
 Met Ala Asn Ser Thr Val Thr His Ala Xaa
     . 35
 <210> 453
 <211> 48
 <212> PRT
 <213> Homo sapiens
 <400> 453
 Met Ser Glu Trp Glu Leu Ser Ser Lys Phe Ser Gln Thr Gln Arg Gln
                                  10
 His Cys Leu Leu Leu Asn Asp Tyr Ser Phe Leu Pro Val Phe Trp Tyr
                               25
 Phe Leu Gly Ile Leu Leu Thr Thr Ala Ile Thr Leu Phe Tyr Phe His
          35
                            40
```

```
<210> 454
  <211> 25
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (25)
  <223> Xaa equals stop translation
  <400> 454
  Met Pro Trp Arg Arg Ala Gly Leu Met Met Leu Pro Ile Ile Thr Gly
                      . 10
  Cys Cys Pro Cys Ser Ala Ser Ile Xaa
            20
  <210> 455
  <211> 54
  <212> PRT
  <213> Homo sapiens
  <400> 455
  Met Tyr Leu Cys Lys Thr Val Lys Val Leu Ile Cys Tyr Asp Trp Ile
       5 - 10
 Leu Gly Leu Val Ser Ser Gly Gln His Trp Val Val Ser Leu Ser Tyr
                          25
  Ser Ile Arg Val Tyr Pro Ala Met His Phe Thr Leu Cys Val His Ile
  Tyr Ser Lys Glu Pro Cys
      50
  <210> 456
  <211> 42
  <212> PRT
 <213> Homo sapiens
  <220>
  <221> SITE
  <222> (42)
  <223> Xaa equals stop translation
  <400> 456
  Met Thr Ala Leu Val Trp Arg Lys Gly Pro Asp Gly Gly Ser Arg Lys
   . 5
  Pro Ile Leu Leu Phe Phe Phe Leu Pro Leu Ile Leu Cys Phe His
                       25
             20
```

```
Ser Phe Ile His Ser Ser Asn Ile Cys Xaa 35 \hspace{1cm} 40
```

<210> 457

<211> 66

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals stop translation

<400> 457

Met Phe Leu Thr Thr Trp Phe Leu Leu Ser Val Ala Trp Xaa Ala 1 5 10 15

Leu Thr Arg Ser Gly Arg Ser Cys Leu Pro Leu Val Gly Arg Pro Arg 20 25 30

Glu Gln Ser Pro Arg Thr His Cys Ala Ala Ser Ser Thr Lys Glu Arg

Asn Ser Asp Pro Gln Pro Ser Pro Pro Glu Val Val Gly Pro Leu Trp 50 55 60

Ser Xaa 65

<210> 458

<211> 156

<212> PRT

<213> Homo sapiens

<400> 458

Met Lys Ala Ile Gly Ile Glu Pro Ser Leu Ala Thr Tyr His His Ile 1 5 10 15

Ile Arg Leu Phe Asp Gln Pro Gly Asp Pro Leu Lys Arg Ser Ser Phe 20 25 30

Ile Ile Tyr Asp Ile Met Asn Glu Leu Met Gly Lys Arg Phe Ser Pro 35 40 45

Lys Asp Pro Asp Asp Asp Lys Phe Phe Gln Ser Ala Met Ser Ile Cys
50 55 60

Ser Ser Leu Arg Asp Leu Glu Leu Ala Tyr Gln Val His Gly Leu Leu 65 70 75 80

Lys Thr Gly Asp Asn Trp Lys Phe Ile Gly Pro Asp Gln His Arg Asn

90-

95

Phe Tyr Tyr Ser Lys Phe Phe Asp Leu Ile Cys Leu Met Glu Gln Ile 100 105 110

Asp Val Thr Leu Lys Trp Tyr Glu Asp Leu Ile Pro Ser Ala Tyr Phe 115 120 125

Pro His Ser Gln Thr Met Ile His Leu Leu Gln Ala Leu Asp Val Ala 130 135 140

Asn Arg Leu Glu Val Ile Pro Lys Ile Trp Glu Arg 145 150 155

85

<210> 459

<211> 31

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (31)

<223> Xaa equals stop translation

<400> 459

Met Asn Asp Asn Ser Pro Asn His Ser Ser Ser Tyr Leu Pro Leu Pro 1 10 15

Leu Thr Ile Val Ile Leu Gln Thr Gly His Lys Gly Thr Leu Xaa 20 25 30

<210> 460

<211> 57

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (57)

<223> Xaa equals stop translation

<400> 460

Met His Phe Leu Phe Arg Phe Ile Val Phe Phe Tyr Leu Trp Gly Leu
1 5 10 15

Phe Thr Ala Gln Arg Gln Lys Lys Glu Glu Ser Thr Glu Glu Val Lys 20 25 30

Ile Glu Val Leu His Arg Pro Glu Asn Cys Ser Lys Thr Ser Lys Lys 35 40 45

Gly Asp Leu Leu Lys Cys Pro Leu Xaa 50 55

```
<211> 416
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (338)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
  <222> (416)
<223> Xaa equals stop translation
  <400> 461
  Met Arg Thr Leu Phe Asn Leu Leu Trp Leu Ala Leu Ala Cys Ser Pro
                                       10
  Val His Thr Thr Leu Ser Lys Ser Asp Ala Lys Lys Ala Ala Ser Lys
  Thr Leu Leu Glu Lys Ser Gln Phe Ser Asp Lys Pro Val Gln Asp Arg
  Gly Leu Val Val Thr Asp Leu Lys Ala Glu Ser Val Val Leu Glu His
                           55
Arg Ser Tyr Cys Ser Ala Lys Ala Arg Asp Arg His Phe Ala Gly Asp
                                           75
                       70
  Val Leu Gly Tyr Val Thr Pro Trp Asn Ser His Gly Tyr Asp Val Thr
                                       90
  Lys Val Phe Gly Ser Lys Phe Thr Gln Ile Ser Pro Val Trp Leu Gln
                                  105
  Leu Lys Arg Arg Gly Arg Glu Met Phe Glu Val Thr Gly Leu His Asp
                                                  125
  Val Asp Gln Gly Trp Met Arg Ala Val Arg Lys His Ala Lys Gly Leu
                         135
  His Ile Val Pro Arg Leu Leu Phe Glu Asp Trp Thr Tyr Asp Asp Phe
                                           155
                      150
  Arg Asn Val Leu Asp Ser Glu Asp Glu Ile Glu Glu Leu Ser Lys Thr
                                       170
                  165
  Val Val Gln Val Ala Lys Asn Gln His Phe Asp Gly Phe Val Val Glu
                                  185
  Val Trp Asn Gln Leu Leu Ser Gln Lys Arg Val Gly Leu Ile His Met
          195
                              200
  Leu Thr His Leu Ala Glu Ala Leu His Gln Ala Arg Leu Leu Ala Leu
                          215
                                              220
```

Leu Val Ile Pro Pro Ala Ile Thr Pro Gly Thr Asp Gln Leu Gly Met

											•				
225					230					235					240
Phe	Thr	His	Lys	Glu 245	Phe	Glu	Gln	Leu	Ala 250	Pro	Val	Leu	Asp	Gly 255	Phe
Ser	Leu	Met	Thr 260	Tyr	qzA	Tyr	Ser	Thr 265	Ala	His	Gln	Pro	Gly 270	Pro	Asn
Ala	Pro	Leu 275	Ser	Trp	Val	Arg	Ala 280	Cys,	Val	Gln	Val	Leu 285	Asp	Pro	Lys
Ser	Lys 290	Trp	Arg	Ser	Lys	Ile 295	Ļeu	Leu	Gly	Leu	Asn 300	Phe	Tyr	Gly	Met
Asp 305	Tyr	Ala	Thr	Ser	.Lys 310	Asp	Ala	Arg	Glu	Pro 315	Val	Val	Gly	Ala	Arg 320
Tyr	Ile	Gln	Thr	Leu 325	Lys	Asp	His	Arg	Pro 330	Arg	Met	Val	Trp	Asp 335	Ser
Gln	Xaa	Ser	Glu 340	His	Phe	Phe	Glu	Тут 345	Lys	Lys	Ser	Arg	Ser 350	Ġĺy	Arg
His	Val	Val 355	Phe	Tyr	Pro	Thr	Leu 360	Lys	Ser	Leu	Gln	Val 365	Arg	Leu	Glu
Leu	Ala 370	Arg	Glu	Leu	Gly	Val 375	Gļy	Val	Ser	Ile	Trp 380	Glu	Leu	Ala	Arg
Ala 385	Trp	Thr	Thr	Ser	Thr 390	Thr	Cys	Ser	Arg	Trp 395	Ala	Leu	Arg	Pro	Pro 400
Arg	Trp	Thr	Cys	Ser 405	Phe	Leu	Ser	His	Gly 410	Val	Ser	Glu	Gln	Val 415	Xaa

```
<210> 462
<211> 64
```

<212> PRT

<213> Homo sapiens

<220> .

<221> SITE

<222> (56)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 462

Met Ala Pro Gly Pro Leu Ser Ala Thr Gln Ala Val Val Ile His Thr
1 5 10 15

Thr His Cys Leu Gln Leu Pro Val Trp Cys Leu Ser Leu Val Ser Glu 20 25 -30

Leu Leu Gly Arg Ala Pro Pro His Asn Lys Asp Ala Leu Arg Pro Ser 35 40 45

Lys Lys Lys Lys Lys Leu Xaa Gly Gly Pro Val Pro Ile Pro Pro 50 55 60

```
<210> 463
<211> 206
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids.
<220>
<221> SITE
<222> (93)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (206)
<223> Kaa equals stop translation
<400> 463
Met Leu Gly Ala Lys Pro His Trp Leu Pro Gly Pro Leu His Ser Pro
                       . . 10
Gly Leu Pro Leu Val Leu Val Leu Leu Ala Leu Gly Ala Gly Trp Ala
Gln Glu Gly Ser Glu Pro Val Leu Leu Glu Gly Glu Cys Leu Val Val
                            40
Cys Glu Pro Gly Arg Ala Ala Gly Gly Pro Gly Gly Ala Ala Leu
Gly Glu Ala Pro Pro Gly Arg Val Ala Phe Ala Ala Val Arg Ser Xaa
His His Glu Pro Ala Gly Glu Thr Gly Asn Gly Thr Xaa Gly Ala Ile
Tyr Phe Asp Gln Val Leu Val Asn Glu Gly Gly Phe Asp Arg Ala
                                105
Ser Gly Ser Phe Val Ala Pro Val Arg Gly Val Tyr Ser Phe Arg Phe
                            120
His Val Val Lys Val Tyr Asn Arg Gln Thr Val Gln Val Ser Leu Met
   130
Leu Asn Thr Trp Pro Val Ile Ser Ala Phe Ala Asn Asp Pro Asp Val
                                       155
                   150
```

```
Thr Arg Glu Ala Ala Thr Ser Ser Val Leu Leu Pro Leu Asp Pro Gly
                                   170
               165
Asp Arg Val Ser Leu Arg Leu Arg Gly Asn Leu Leu Gly Gly Trp
Lys Tyr Ser Ser Phe Ser Gly Phe Leu Ile Phe Pro Leu Xaa
                           200
<210> 464
<211> 38
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (38)
<223> Xaa equals stop translation
<400> 464
Met Gln Arg Lys Val Ser Asp Phe Ile Ile His Gln Arg Leu Thr Val
                                    10
Asn Leu Cys Val Ile Ser Phe Phe Phe Phe Leu Pro Ile Cys Ile Phe
                   . 25
Ser Leu Ala Lys Lys Xaa
<210> 465
<211> 136
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (136)
<223> Xaa equals stop translation
<400> 465
Val Val Gly Thr Gly Thr Ser Leu Ala Leu Ser Ser Leu Leu Ser Leu
                                    10
Leu Leu Phe Ala Gly Met Gln Met Tyr Ser Arg Gln Leu Ala Ser Thr
                                                    30
Glu Trp Leu Thr Ile Gln Gly Gly Leu Leu Gly Ser Gly Leu Phe Val
Phe Ser Leu Thr Ala Phe Asn Asn Leu Glu Asn Leu Val Phe Gly Lys
```

55

70

Gly Phe Gln Ala Lys Ile Phe Pro Glu Ile Leu Leu Cys Leu Leu Leu

75

<220>

```
Ala Leu Phe Ala Ser Gly Leu Ile His Arg Val Cys Val Thr Thr Cys
                 85
                                     90
Phe Ile Phe Ser Met Val Gly Leu Tyr Tyr Ile Asn Lys Ile Ser Ser
           100
                                105
Thr Leu Tyr Gln Ala Ala Ala Pro Val Leu Thr Pro Ala Lys Val Thr
        115
Gly Lys Ser Lys Lys Arg Asn Xaa
<210> 466
<211> 50
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (50)
<223> Xaa equals stop translation
<400> 466
Met Cys Leu Ser Arg Trp Lys Ile Phe Tyr Thr Leu Leu Ile Leu Phe
                                    10
Xaa Xaa Phe Ser Ile Thr Ser Glu Xaa Glu Thr Phe Tyr Met Ile Ile
Ile His His Asn Pro Thr Gln Ile Thr Ala Ser Cys Ser Phe Thr Phe
                                                 45
                             40
Leu Xaa
     50
<210> 467
<211> 71
<212> PRT
<213> Homo sapiens
```

```
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids
<221> SITE
<222> (49)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (71)
<223> Xaa equals stop translation
<400> 467
Met Trp Gly Cys Ser Gly Leu Gly His Arg Thr Val Ser Phe Leu Leu
                                     10
Leu Leu Pro Cys Ser Phe Pro Arg Pro Cys Xaa Leu Phe Gly Leu Ile
                                  25
Pro Ile Ser Arg Pro Cys Lys Val Glu Ala Pro Arg Leu Ser Val Pro
Xaa Leu Ser Cys Ala Ser His Pro Tyr Cys Asn Cys Pro Met Ser Thr
Ser Cys Pro Leu Pro Arg Xaa
                     70
<210> 468
<211> 59
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (59)
<223> Xaa equals stop translation
<400> 468
Asp Phe Val Pro Val Leu Val Phe Val Leu Ile Lys Ala Asn Pro Pro
                  5
Cys Leu Leu Ser Thr Val Gln Tyr Ile Ser Ser Phe Tyr Ala Ser Cys
Leu Ser Gly Glu Glu Ser Tyr Trp Trp Met Gln Phe Thr Ala Ala Val
         35
                             40
Glu Phe Ile Lys Thr Ile Asp Asp Arg Lys Xaa
     50
<210> 469
<211> 59
<212> PRT
```

```
<213> Homo sapiens
<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (59)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 469
Met Phe Ser Arg Thr Ser Asn Phe Trp Thr Phe Phe Phe Gln Phe Leu
Ile Phe Lys Val Phe Leu Val Leu Lys Asn Xaa Phe Thr Ser Gln Lys
Ile Xaa Xaa Ile Xaa Xaa Glu Lys Pro Lys Lys Lys Xaa Arg Gly
                             40
Gly Arg Ala Pro Ser Pro Gln Gly Gly Pro Xaa
     50
<210> 470
<211> 62
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
```

```
<222> (17)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <220>
  <221> SITE
  <222> (62)
  <223> Xaa equals stop translation
  <400> 470
  Met Ser Ser Leu Leu Ser Ala Gly Leu Gln Ala Ser Leu Cys Gly Lys
                                       10
  Xaa Leu Trp Ala Ser Thr Trp Tyr Leu Val Cys Cys Leu Leu Pro Phe
                                   25
  Phe His Gln Gly Cys Cys Asp His Lys Ser Lys Gln Gln Tyr Ile Pro
  Asn Leu Lys Ser Tyr Cys Gly Leu Ser Thr Ile Glu Ile Xaa
                           55
 <210> 471
  <211> 316
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
<222> (103)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
  <222> (302)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
  <222> (305)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (316)
. <223> Xaa equals stop translation
 <400> 471
 Met Ser Thr Lys Lys Leu Cys Ile Val Gly Gly Ile Leu Leu Val Phe
                                       10
 Gln Ile Ile Ala Phe Leu Val Gly Gly Leu Ile Ala Pro Gly Pro Thr
                                   25
 Thr Ala Val Ser Tyr Met Ser Val Lys Cys Val Asp Ala Arg Lys Asn
                               40
 His His Lys Thr Lys Trp Phe Val Pro Trp Gly Pro Asn His Cys Asp
```

£

H.

50	55	60

Lys Ile Arg Asp Ile Glu Glu Ala Ile Pro Arg Glu Ile Glu Ala Asn 75 Asp Ile Val Phe Ser Val His Ile Pro Leu Pro His Met Glu Met Ser Pro Trp Phe Gln Phe Met Xaa Phe Ile Leu Gln Leu Asp Ile Ala Phe 105 100 Lys Leu Asn Asn Gln Ile Arg Glu Asn Ala Glu Val Ser Met Asp Val 120 115 Ser Leu Ala Tyr Arg Asp Asp Ala Phe Ala Glu Trp Thr Glu Met Ala 135 140 His Glu Arg Val Pro Arg Lys Leu Lys Cys Thr Phe Thr Ser Pro Lys 155 150 145 Thr Pro Glu His Gly Gly Pro Val Thr Met Asn Val Met Ser Phe Leu 170 Ser Trp Lys Leu Gly Leu Trp Pro Met Lys Phe Tyr Leu Leu Asn Ile 185 Arg Leu Pro Val Asn Glu Lys Lys Lys Ile Asn Val Gly Ile Gly Glu Ile Lys Asp Ile Arg Leu Val Gly Ile His Gln Asn Gly Gly Phe Thr 215 Lys Val Trp Phe Ala Met Lys Thr Phe Leu Thr Pro Ser Ile Phe Ile 230 235 Ile Met Val Trp Tyr Trp Arg Arg Ile Thr Met Met Ser Arg Pro Pro 250 245 Val Leu Leu Glu Lys Val Ile Phe Ala Leu Gly Ile Ser Met Thr Phe

Ile Asn Ile Pro Val Glu Trp Phe Ser Ile Gly Phe Asp Trp Thr Trp 280

Met Leu Leu Phe Gly Asp Ile Arg Gln Ala Ser Ser Met Xaa Cys Phe 295 .

Xaa Pro Ser Gly Ser Ser Ser Val Ala Ser Thr Xaa 310

<210> 472

<211> 24

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

```
<222> (24)
<223> Xaa equals stop translation
<400> 472
Met Leu Ala Leu Leu Gly Leu Leu Ala Gly Thr Glu His Pro Pro Gly
                                     10
Pro Gln Gly Pro Gly Pro Ser Xaa
             20
<210> 473
<211> 10
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Xaa equals stop translation
<400> 473
Met Pro Ser Gly Ala Cys Cys Ser Pro Xaa
<210> 474
<211> 85
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (44)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (85)
<223> Xaa equals stop translation
<400> 474
Tyr Val Met Ile Phe Lys Lys Glu Phe Ala Pro Ser Asp Glu Glu Leu
Asp Ser Tyr Arg Arg Gly Glu Glu Trp Asp Pro Gln Lys Ala Glu Glu
Lys Arg Asn Xaa Lys Glu Leu Ala Gln Arg Gln Xaa Gly Gly Gly Ser
       - 35
Pro Ala Gly Ala Cys Gly Gly Glu Pro Cys Gln Arg Leu Gln Gly Gln
```

```
Val Gln Pro Pro His Arg Gln Gly Ser Ser Gln Arg Arg Ser Pro His
            . 70
Ala Thr Gly Gln Xaa
                85
<210> 475
<211> 26
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (26)
<223> Xaa equals stop translation
<400> 475
Met Leu Pro Ala Leu Ser Thr Val Leu Leu Pro Thr Pro Ser Leu Cys
                5
Ser Gly Asn Pro Arg Glu Gly Trp Ala Xaa
         20
<210> 476
<211> 34
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (34)
<223> Xaa equals stop translation
<400> 476
Lys Glu Phe Phe Val Phe Leu Phe Val Cys Leu Phe Trp Leu Leu Ser
Asn Thr Pro Leu Thr Phe Ile Ser Ile Ile Leu Gln Arg Lys Glu Thr
                . 25
Asn Xaa
<210> 477
<211> 172
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (151) '
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
```



<221> SITE

<222> (172)

<223> Xaa equals stop translation

<400> 477

Met Tyr Ser Leu His Ser Trp Val Gly Leu Ile Ala Val Ile Cys Tyr 1 5 10 15

Leu Leu Gln Leu Leu Ser Gly Phe Ser Val Phe Leu Leu Pro Trp Ala 20 25 30

Pro Leu Ser Leu Arg Ala Phe Leu Met Pro Ile His Val Tyr Ser Gly 35 . 40 45

Ile Val Ile Phe Gly Thr Val Ile Ala Thr Ala Leu Met Gly Leu Thr 50 55 60

Glu Lys Leu Ile Phe Ser Leu Arg Asp Pro Ala Tyr Ser Thr Phe Pro 65 70 75 80

Pro Glu Gly Val Phe Val Asn Thr Leu Gly Leu Leu Ile Leu Val Phe 85 90 95

Gly Ala Leu Ile Phe Trp Ile Val Thr Arg Pro Gln Trp Lys Arg Pro 100 105 110

Lys Glu Pro Asn Ser Thr Ile Leu His Pro Asn Gly Gly Thr Glu Gln
115 120 125

Gly Ala Arg Gly Ser Met Pro Ala Tyr Ser Gly Asn Asn Met Asp Lys 130 135 140

Ala Leu Asp Glu Ala Gly Gln Arg Ser Thr Met Xaa 165 170

<210> 478

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (61)

<223> Xaa equals stop translation

```
<400> 478
Met Cys Ile His Val Phe Met Xaa Val Leu Trp Val Leu Phe Leu Leu
                                    10
Asn Pro Leu Cys Thr Gly Leu Trp Pro Leu Xaa Asn Cys Phe Ser Val
             20
                                 25
Leu Arg His Ala Asp Trp Val Leu Gly Ala Asp Tyr Lys Gly Glu Glu
Leu Asn Arg His Gln Gly Pro Met Lys Pro Lys Asp Xaa
                         55
<210> 479
<211> 3
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (3)
<223> Xaa equals stop translation
<400> 479
Gly Arg Xaa
 1
<210> 480
<211> 96
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (96)
<223> Xaa equals stop translation
<400> 480
Met Phe His Val Leu Met Ala Gln Val Thr Kaa Val Ile Ile Thr Thr
```

- Val Ser Val Leu Val Phe Asp Phe Arg Pro Ser Leu Glu Phe Phe Leu 20 25 30
- Glu Ala Xaa Ser Val Xaa Leu Ser Ile Phe Ile Tyr Asn Ala Ser Lys 35 40 45
- Pro Gln Val Pro Glu Tyr Ala Pro Arg Gln Glu Arg Ile Arg Asp Leu 50 55 60
- Ser Gly Asn Leu Trp Glu Arg Ser Ser Gly Asp Gly Glu Glu Leu Glu
 65 70 75 80
- Arg Leu Thr Lys Pro Lys Ser Asp Glu Ser Asp Glu Asp Thr Phe Kaa 85 90 95
- <210> 481
- <211> 171
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (159)
- <223> Xaa equals any of the naturally occurring L-amino acids
- <220>
- <221> SITE
- <222> (171)
- <223> Xaa equals stop translation
- <400> 481
- Met Arg Gly Pro Ala Gln Ala Lys Leu Leu Pro Gly Ser Ala Ile Gln
 1 5 10 15
- Ala Leu Val Gly Leu Ala Arg Pro Leu Val Leu Ala Leu Leu Leu Val 20 25 30
- Ser Ala Ala Leu Ser Ser Val Val Ser Arg Thr Asp Ser Pro Ser Pro 35 40 45
- Thr Val Leu Asn Ser His Ile Ser Thr Pro Asn Val Asn Ala Leu Thr 50 55 60
- His Glu Asn Gln Thr Lys Pro Ser Ile Ser Gln Ile Ser Thr Thr Leu 65 70 75 80
- Pro Pro Thr Thr Ser Thr Lys Lys Ser Gly Gly Ala Ser Val Val Pro 85 90 95
- His Pro Ser Pro Thr Pro Leu Ser Gln Glu Glu Ala Asp Asn Asn Glu
 100 105 110
- Asp Pro Ser Ile Glu Glu Glu Asp Leu Leu Met Leu Asn Ser Ser Pro

115 120 125

Ser Thr Ala Lys Asp Thr Leu Asp Asn Gly Asp Tyr Gly Glu Pro Asp 130 135 140

Tyr Asp Trp Thr Thr Gly Pro Arg Asp Asp Asp Glu Ser Asp Xaa His 145 150 155 160

Leu Gly Arg Lys Gln Gly Leu His Gly Asn Xaa 165 170

<210> 482

<211> 623

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (111)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (575)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 482

Met Phe Met Arg Ile Ala Lys Ala Tyr Ala Ala Leu Thr Asp Glu Glu 1 5 10 15

Ser Arg Lys Asn Trp Glu Glu Phe Gly Asn Pro Asp Gly Pro Gln Ala 20 25 30

Thr Ser Phe Gly Ile Ala Leu Pro Ala Trp Ile Val Asp Gln Lys Asn 35 40 45

Ser Ile Leu Val Leu Val Tyr Gly Leu Ala Phe Met Val Ile Leu 50 55 60

Pro Val Val Gly Ser Trp Trp Tyr Arg Ser Ile Arg Tyr Ser Gly 65 70 75 80

Asp Gln Ile Leu Ile Arg Thr Thr Gln Ile Tyr Thr Tyr Phe Val Tyr

85 90 95

Lys Thr Arg Asn Met Asp Met Lys Arg Leu Ile Met Val Leu Xaa Gly 100 105 110

Ala Ser Glu Phe Asp Pro Gln Tyr Asn Lys Asp Ala Thr Ser Arg Pro 115 120 125

Thr Asp Asn Ile Leu Ile Pro Gln Leu Ile Arg Glu Ile Gly Ser Ile 130 135 140

Asn Leu Lys Lys Asn Glu Pro Pro Leu Thr Cys Pro Tyr Ser Leu Lys 145 150 155 160

- Ala Arg Val Leu Leu Ser His Leu Ala Arg Met Lys Ile Pro Glu 165 170 175
- Leu Gln Glu Met Val Asn Val Ile Cys Gln Leu Ile Val Met Ala Arg 195 200 205
- Asn Arg Glu Glu Arg Glu Phe Arg Ala Pro Thr Leu Ala Ser Leu Glu 210 220
- Asn Cys Met Lys Leu Ser Gln Met Ala Val Gln Gly Leu Gln Gln Phe 225 230 235 240
- Lys Ser Pro Leu Leu Gln Leu Pro His Ile Glu Glu Asp Asn Leu Arg 245 250 255
- Arg Val Ser Asn His Lys Lys Tyr Lys Ile Lys Thr Ile Gln Asp Leu 260 265 270
- Val Ser Leu Lys Glu Ser Asp Arg His Thr Leu Leu His Phe Leu Glu 275 280 285
- Asp Glu Lys Tyr Glu Glu Val Met Ala Val Leu Gly Ser Phe Pro Tyr 290 295 300
- Val Thr Met Asp Ile Lys Ser Gln Val Leu Asp Asp Glu Asp Ser Asn 305 310 315 320
- Asn Ile Thr Val Gly Ser Leu Val Thr Val Leu Val Lys Leu Thr Arg
- Gln Thr Met Ala Glu Val Phe Glu Lys Glu Gln Ser Ile Cys Ala Ala 340 345 350
- Glu Glu Gln Pro Ala Glu Asp Gly Gln Gly Glu Thr Asn Lys Asn Arg 355 360 ' 365
- Thr Lys Gly Gly Trp Gln Gln Lys Ser Lys Gly Pro Lys Lys Thr Ala 370 375 380
- Lys Ser Lys Lys Lys Pro Leu Lys Lys Pro Thr Pro Val Leu 385 390 395 400
- Leu Pro Gln Ser Lys Gln Gln Lys Gln Lys Gln Ala Asn Gly Val Val 405 410 415
- Gly Asn Glu Ala Ala Val Lys Glu Asp Glu Glu Glu Val Ser Asp Lys
 420 425 430
- Gly Ser Asp Ser Glu Glu Glu Glu Thr Asn Arg Asp Ser Gln Ser Glu
 435 440 445
- Lys Asp Asp Gly Ser Asp Arg Asp Ser Asp Arg Glu Gln Asp Glu Lys 450 455 460
- Gln Asn Lys Asp Asp Glu Ala Glu Trp Gln Glu Leu Gln Gln Ser Ile

480

470

465

Gln Arg Lys Glu Arg Ala Leu Leu Glu Thr Lys Ser Lys Ile Thr His 490 485 Pro Val Tyr Ser Leu Tyr Phe Pro Glu Glu Lys Gln Glu Trp Trp 500 505 Leu Tyr Ile Ala Asp Arg Lys Glu Gln Thr Leu Ile Ser Met Pro Tyr 520 His Val Cys Thr Leu Lys Asp Thr Glu Glu Val Glu Leu Lys Phe Pro 535 Ala Pro Gly Lys Pro Gly Asn Tyr Gln Tyr Thr Val Phe Leu Arg Ser ` 550 555 Asp Ser Tyr Met Gly Leu Asp Gln Ile Lys Pro Leu Glu Val Xaa Lys Phe Met Arg Leu Lys Pro Val Pro Glu Asn His Pro Gln Trp Asp Thr Ala Ile Glu Gly Asp Glu Asp Gln Glu Asp Ser Glu Gly Phe Glu Asp Ser Phe Glu Gly Gly Arg Gly Arg Glu Glu Gly Arg Trp Trp Thr 615 <210> 483 <211> 92 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (29) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (31) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (43) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (92) <223> Xaa equals stop translation Met Lys Ala Ser Gln Cys Cys Cys Leu Ser His Leu Leu Ala Ser 1.0

Val Leu Leu Leu Leu Leu Pro Glu Leu Ser Gly Xaa Leu Xaa Val 20 25 30

Leu Leu Gln Ala Ala Glu Ala Ala Pro Gly Xaa Gly Pro Pro Asp Pro 35 40 45

Arg Pro Gly His Tyr Arg Arg Cys His Arg Ala Leu Thr Pro Ala Gln 50 55 60

Gln Pro Gly Arg Gly Leu Ala Glu Ala Gly Ala Ala Gly Leu Arg
65 70 75 80

Gly Arg Gln Trp Gln Gln Pro Cys Gly Arg Ala Xaa 85 90

<210> 484

<211> 14

<212> PRT <213> Homo sapiens

<220>

<221> SITE

<222> (13)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (14)

<223> Xaa equals stop translation

<400> 484

Met Phe Lys Cys Leu Gln Thr Thr Phe Leu Phe Ile Xaa Xaa 1 10

<210> 485

<211> 54

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (54)

<223> Xaa equals stop translation

<400> 485

Ile Leu Leu Cys Ser Trp Pro Thr Gly Leu Val Gly Gly Arg Asp Pro 1 5 10 15

Gly Ser Ser Arg Gly Ser Ser Ala Ser Leu Thr Pro Ser Pro Gly Arg

Gln Pro Cys Ser Arg Arg Arg Gly Tyr Ser Val Gly Arg Arg Ser Ser 35 40 45

Pro Pro Asp Gly Ser Xaa

<400> 488

```
<210> 436
<211> 22
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (22)
<223> Xaa equals stop translation
<400> 486
Met Ala Phe Val Leu Leu Xaa Cys Phe Val Xaa Leu Gln Ser Ser Xaa
                                      10
Gly Arg Ala Val Gln Xaa
             20
<210> 487
<211> 19
<212> PRT
<213> Homo sapiens
<400> 487
Glu Asn Met Ile Cys Val Lys Cys Leu Pro Gln Tyr Pro Glu His Ser
                                     10
Lys His Val
<210> 488
<211> 20
<212> PRT
<213> Homo sapiens
```

Ala Arg Val Ala Phe His Leu Ile Cys Arg Tyr Ile Leu Pro Thr Val

10

```
Tyr Cys His Val
             20
<210> 489
<211> 20
<212> PRT
<213> Homo sapiens
<400> 489
Glu Leu Val Glu Ser Pro Gly Ala Ala Gly Asn Ser Ala Arg Ser Gly
                                     10
Asn Val Val Cys
             20
<210> 490
<211> 25
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (9)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 490
Phe Lys Lys Leu Val Asn Pro Arg Xaa Gln Gly Ile Arg His Glu Glu
                 5
Glu Ala Val Ser Trp Gln Glu Arg Arg
             20
<210> 491
<211> 206
<212> PRT .
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 491
Ile Ser Val Leu Xaa Tyr Pro His Cys Val Val His Glu Leu Pro Glu
Leu Thr Ala Glu Ser Leu Glu Ala Gly Asp Ser Asn Gln Phe Cys Trp
                                  25
             20
Arg Asn Leu Phe Ser Cys Ile Asn Leu Leu Arg Ile Leu Asn Lys Leu
Thr Lys Trp Lys His Ser Arg Thr Met Met Leu Val Val Phe Lys Ser
```

50

```
Ala Pro Ile Leu Lys Arg Ala Leu Lys Val Lys Gln Ala Met Met Gln 65 70 75 80
```

- Leu Tyr Val Leu Lys Leu Leu Lys Val Gln Thr Lys Tyr Leu Gly Arg 85 90 95
- Gln Trp Arg Lys Ser Asn Met Lys Thr Met Ser Ala Ile Tyr Gln Lys
 100 105 110
- Val Arg His Arg Leu Asn Asp Asp Trp Ala Tyr Gly Asn Asp Leu Asp 115 120 125
- Ala Arg Pro Trp Asp Phe Gln Ala Glu Glu Cys Ala Leu Arg Ala Asn 130 135 140
- Ile Glu Arg Phe Asn Ala Arg Arg Tyr Asp Arg Ala His Ser Asn Pro 145 150 155 160
- Asp Phe Leu Pro Val Asp Asn Cys Leu Gln Ser Val Leu Gly Gln Arg 165 170 175
- Val Asp Leu Pro Glu Asp Phe Gln Met Asn Tyr Asp Leu Trp Leu Glu 180 185 190
- Arg Glu Val Phe Ser Lys Pro Ile Ser Trp Glu Glu Leu Leu 195 200 205
- <210> 492
- <211> 507
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (87)
- <223> Xaa equals any of the naturally occurring L-amino acids
- <220>
- <221> SITE
- <222> (95)
- <223> Xaa equals any of the naturally occurring L-amino acids
- <400> 492
- Met Arg Ala Ala Ser Pro Pro Ala Ser Ala Ser Asp Leu Ile Glu Gln

 1 5 10 15
- Gln Gln Lys Arg Gly Arg Arg Glu His Lys Ala Leu Ile Lys Gln Asp
- Asn Leu Asp Ala Phe Asn Glu Arg Asp Pro Tyr Lys Ala Asp Asp Ser
- Arg Glu Glu Glu Glu Asn Asp Asp Asp Asn Ser Leu Glu Gly Glu
 50 55 , 60
- Thr Phe Pro Leu Glu Arg Asp Glu Val Met Pro Pro Pro Leu Gln His
 65 70 75 80

Pro Gln Thr Asp Arg Leu Xaa Cys Pro Lys Gly Leu Pro Trp Xaa Pro 85 90 95

Lys Val Arg Glu Lys Asp Ile Glu Met Phe Leu Glu Ser Ser Arg Ser 100 105 110

Lys Phe Ile Gly Tyr Thr Leu Gly Ser Asp Thr Asn Thr Val Val Gly 115 120 125

Leu Pro Arg Pro Ile His Glu Ser Ile Lys Thr Leu Lys Gln His Lys
130 135 140

Tyr Thr Ser Ile Ala Glu Val Gln Ala Gln Met Glu Glu Glu Tyr Leu 145 150 155 160

Arg Ser Pro Leu Ser Gly Gly Glu Glu Glu Val Glu Gln Val Pro Ala 165 170 175

Glu Thr Leu Tyr Gln Gly Leu Leu Pro Ser Leu Pro Gln Tyr Met Ile 180 185 190

Ala Leu Leu Lys Ile Leu Leu Ala Ala Pro Thr Ser Lys Ala Lys 195 200 205

Thr Asp Ser Ile Asn Ile Leu Ala Asp Val Leu Pro Glu Glu Met Pro 210 215 , 220

Thr Thr Val Leu Gln Ser Met Lys Leu Gly Val Asp Val Asn Arg His 225 230 235 240

Lys Glu Val Ile Val Lys Ala Ile Ser Ala Val Leu Leu Leu Leu 245 250 255

Lys His Phe Lys Leu Asn His Val Tyr Gln Phe Glu Tyr Met Ala Gln 260 265 270

His Leu Val Phe Ala Asn Cys Ile Pro Leu Ile Leu Lys Phe Phe Asn 275 280 285

Gln Asn Ile Met Ser Tyr Ile Thr Ala Lys Asn Ser Ile Ser Val Leu 290 295 300

Asp Tyr Pro His Cys Val Val His Glu Leu Pro Glu Leu Thr Ala Glu 305 310 315 320

Ser Leu Glu Ala Gly Asp Ser Asn Gln Phe Cys Trp Arg Asn Leu Phe 325

Ser Cys Ile Asn Leu Leu Arg Ile Leu Asn Lys Leu Thr Lys Trp Lys 340 345 350

His Ser Arg Thr Met Met Leu Val Val Phe Lys Ser Ala Pro Ile Leu 355 360 365

Lys Arg Ala Leu Lys Val Lys Gln Ala Met Met Gln Leu Tyr Val Leu 370 380

```
Lys Leu Leu Lys Val Gln Thr Lys Tyr Leu Gly Arg Gln Trp Arg Lys
385
                                        395
Ser Asn Met Lys Thr Met Ser Ala Ile Tyr Gln Lys Val Arg His Arg
                                    410
Leu Asn Asp Asp Trp Ala Tyr Gly Asn Asp Leu Asp Ala Arg Pro Trp
Asp Phe Gln Ala Glu Glu Cys Ala Leu Arg Ala Asn Ile Glu Arg Phe
        435
                           440
Asn Ala Arg Arg Tyr Asp Arg Ala His Ser Asn Pro Asp Phe Leu Pro
                                            460
                        455
Val Asp Asn Cys Leu Gln Ser Val Leu Gly Gln Arg Val Asp Leu Pro
Glu Asp Phe Gln Met Asn Tyr Asp Leu Trp Leu Glu Arg Glu Val Phe
               485
                                490
Ser Lys Pro Ile Ser Trp Glu Glu Leu Leu Gln
          500
<210> 493
<211> 50
<212> PRT
<213> Homo sapiens
<400> 493
Met Arg Ala Ala Ser Pro Pro Ala Ser Ala Ser Asp Leu Ile Glu Gln
Gln Gln Lys Arg Gly Arg Glu His Lys Ala Leu Ile Lys Gln Asp
                                                    30
             20
                               25
Asn Leu Asp Ala Phe Asn Glu Arg Asp Pro Tyr Lys Ala Asp Asp Ser
                            40
Arg Glu
   50
<210> 494
<211> 45
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (45)
```

<223> Xaa equals any of the naturally occurring L-amino acids

```
0> 494
   Glu Glu Glu Asn Asp Asp Asp Ser Leu Glu Gly Glu Thr Phe
                                    10
                 5
  · Leu Glu Arg Asp Glu Val Met Pro Pro Pro Leu Gln His Pro Gln
                                25
  : Asp Arg Leu Xaa Cys Pro Lys Gly Leu Pro Trp Xaa
                            40
  LO> 495
  L1> 51
  L2> PRT
  13> Homo sapiens
 00> 495
 o Lys Val Arg Glu Lys Asp Ile Glu Met Phe Leu Glu Ser Ser Arg
                                    1.0
 r Lys Phe Ile Gly Tyr Thr Leu Gly Ser Asp Thr Asn Thr Val Val
                                25
 y Leu Pro Arg Pro Ile His Glu Ser Ile Lys Thr Leu Lys Gln His
 s Tyr Thr
   50
110> 496
11> 47
 ?12> PRT
213> Homo sapiens
 100> 496
 er Ile Ala Glu Val Gln Ala Gln Met Glu Glu Glu Tyr Leu Arg Ser
                                    10
 ro Leu Ser Gly Gly Glu Glu Glu Val Glu Gln Val Pro Ala Glu Thr
                                                     30
eu Tyr Gln Gly Leu Leu Pro Ser Leu Pro Gln Tyr Met Ile Ala
210> 497
211> 48
:212> PRT
:213> Homo sapiens
:400> 497
Leu Leu Lys Ile Leu Leu Ala Ala Pro Thr Ser Lys Ala Lys Thr
                 5
                                    10
Asp Ser Ile Asn Ile Leu Ala Asp Val Leu Pro Glu Glu Met Pro Thr
```

20

30

Thr Val Leu Gln Ser Met Lys Leu Gly Val Asp Val Asn Arg His Lys 35 40 45

```
<210> 498
<211> 50
<212> FRT
<213> Homo sapiens
```

<400> 498

Glu Val Ile Val Lys Ala Ile Ser Ala Val Leu Leu Leu Leu Lys 1 5 10 15

His Phe Lys Leu Asn His Val Tyr Gln Phe Glu Tyr Met Ala Gln His 20 25 30

Leu Val Phe Ala Asn Cys Ile Pro Leu Ile Leu Lys Phe Phe Asn Gln 35 40 45

Asn Ile 50

<210> 499 <211> 48 <212> PRT <213> Homo sapiens

<400> 499

Met Ser Tyr Ile Thr Ala Lys Asn Ser Ile Ser Val Leu Asp Tyr Pro 1 5 10 15

His Cys Val Val His Glu Leu Pro Glu Leu Thr Ala Glu Ser Leu Glu 20 25 30

Ala Gly Asp Ser Asn Gln Phe Cys Trp Arg Asn Leu Phe Ser Cys Ile 35 40 45

<210> 500 <211> 47 <212> PRT <213> Homo sapiens

<400> 500

Asn Leu Leu Arg Ile Leu Asn Lys Leu Thr Lys Trp Lys His Ser Arg

1 10 15

Thr Met Met Leu Val Val Phe Lys Ser Ala Pro Ile Leu Lys Arg Ala 20 25 30

Leu Lys Val Lys Gln Ala Met Met Gln Leu Tyr Val Leu Lys Leu 35 40 45

<210> 501

<211> 45

<212> PRT

<213> Homo sapiens

<400> 501

Leu Lys Val Gln Thr Lys Tyr Leu Gly Arg Gln Trp Arg Lys Ser Asn 1 5 10 15

Met Lys Thr Met Ser Ala Ile Tyr Gln Lys Val Arg His Arg Leu Asn 20 25 30

Asp Asp Trp Ala Tyr Gly Asn Asp Leu Asp Ala Arg Pro 35 40 45

<210> 502

<211> 48

<212> PRT

<213> Homo sapiens

<400> 502

Trp Asp Phe Gln Ala Glu Glu Cys Ala Leu Arg Ala Asn Ile Glu Arg 1 5 10 15

Phe Asn Ala Arg Arg Tyr Asp Arg Ala His Ser Asn Pro Asp Phe Leu 20 25 30

Pro Val Asp Asn Cys Leu Gln Ser Val Leu Gly Gln Arg Val Asp Leu 35 40 45

<210> 503

<211> 28

<212> PRT

<213> Homo sapiens

<400> 503

Pro Glu Asp Phe Gln Met Asn Tyr Asp Leu Trp Leu Glu Arg Glu Val
1 5 10 15

Phe Ser Lys Pro Ile Ser Trp Glu Glu Leu Leu Gln
20 25

<210> 504

<211> 317

<212> PRT

<213> Homo sapiens

<220>

```
<221> SITE
```

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 504

Met Ala Pro Pro Ala Pro Gly Pro Ala Ser Gly Gly Ser Gly Glu Val
1 5 10 15

Asp Glu Leu Phe Asp Val Lys Asn Ala Phe Tyr Ile Gly Ser Tyr Gln 20 25 30

Gln Cys Ile Asn Glu Ala Xaa Xaa Val Lys Leu Ser Ser Pro Glu Arg 35 40 45

Asp Val Glu Arg Asp Val Phe Leu Tyr Arg Ala Tyr Leu Ala Gln Arg
50 55 60

Lys Phe Gly Val Val Leu Asp Glu Ile Lys Pro Ser Ser Ala Pro Glu 65 70 . 75 80

Leu Gln Ala Val Arg Met Phe Ala Asp Tyr Leu Ala His Glu Ser Arg 85 90 95

Arg Asp Ser Ile Val Ala Glu Leu Asp Arg Glu Met Ser Arg Ser Xaa
100 105 110

Asp Val Thr Asn Thr Thr Phe Leu Leu Met Ala Ala Ser Ile Tyr Leu 115 120 125

His Asp Gln Asn Pro Asp Ala Ala Leu Arg Ala Leu His Gln Gly Asp 130 135 140

Ser Leu Glu Cys Thr Ala Met Thr Val Gln Ile Leu Leu Lys Leu Asp 145 150 155 160

Arg Leu Asp Leu Ala Arg Lys Glu Leu Lys Arg Met Gln Asp Leu Asp 165 170 175

Glu Asp Ala Thr Leu Thr Gln Leu Ala Thr Ala Trp Val Ser Leu Ala 180 185 190

Thr Gly Gly Glu Lys Leu Gln Asp Ala Tyr Tyr Ile Phe Gln Glu Met 195 200 205

Ala Asp Lys Cys Ser Pro Thr Leu Leu Leu Leu Asn Gly Gln Ala Ala 210 215 220

Cys His Met Ala Gln Gly Arg Trp Glu Ala Ala Glu Gly Leu Leu Gln

225					230					235					240
Glu	Ala	Leu	Asp	Lys 245	Asp	Ser	Gly	Tyr	Pro 250	Glu	Thr	Leu	Val	Asn 255	Leu
Ile	Val	Leu	Ser 260	Gln	His	Leu	Gly	Lys 265	Pro	Pro	Glu		Thr 270	Asn	Arg
Tyr	Leu	Ser 275	Gln	Leu	Lys	qsA	Ala 280	His	Arg	Ser	His	Pro 285	Phe	Ile	Lys
Glu	Tyr 290	Gln	Ala	Lys	Glu	Asn 295	Asp	Phe	Asp	Arg	Leu 300	Val	Leu	Gln	Туг
Ala 305	Pro	Ser	Ala	Glu	Ala 310	Gly	Pro	Glu	Leu	Ser 315	Gly	Pro			
<213 <213)> 50 L> 26 2> PF 3> Ho	51 RT	sapie	ens							-				
<222	L> SI 2> (6	55)	quals	s any	y of	the	nati	urall	ly o	ccuri	ring	L-ar	mino	acio	is
)> 5(Asp		Glu	Arg 5	Asp	Val	Phe	Leu	Tyr 10	Arg	Ala	Tyr	Leu	Ala 15	Glr
Arg	Lys	Phe	Gly 20	Val	Val	Leu	Asp	Glu 25	Ile	Lys	Pro	Ser	Ser 30	Ala	Pro
Glu	Leu	Gln 35	Ala	Val	Arg	Met	Phe 40	Ala	Asp	Tyr	Leu	Ala 45	His	Glu	Ser
Arg	Arg 50	Asp	Ser	Ile	Val	Ala 55	Glu	Leu	Asp	Arg	Glu 60	Met	Ser	Arg.	Ser
Xaa 65	Asp	Val	Thr	Aşn	Thr 70	Thr	Phe	Leu	Leu	Met 75	Ala	Ala	Ser	Ile	TYT 80
Leu	His	Asp	Gln	Asn 85	Pro	Asp	Ala	Ala	Leu 90	Arg	Ala	Leu	His	Gln 95	Gly
Asp	Ser	Leu	Glu 100	Cys	Thr	Ala	Met	Thr 105	Val	Gln	Ile	Leu	Leu 110	Lys	Leu
Asp	Arg	Leu 115	Asp	Leu	Ala	Arg	Lys 120	Glu	Leu	Lys	Arg	Met 125	Gln	Asp	Leu
Asp	Glu 130	qzA	Ala	Thr	Leu	Thr 135	Gln	Leu	Ala	Thr	Ala 140	Trp	Val	Ser	Leu
Ala	Thr	Gly	Gly	Glu	Lys	Leu	Gln	qzA	Ala	Tyr 155	Tyr	Ile	Phe	Gln	Glu 160

Met Ala Asp Lys Cys Ser Pro Thr Leu Leu Leu Leu Asn Gly Gln Ala 165 170 175

Ala Cys His Met Ala Gln Gly Arg Trp Glu Ala Ala Glu Gly Leu Leu 180 185 190

Gln Glu Ala Leu Asp Lys Asp Ser Gly Tyr Pro Glu Thr Leu Val Asn 195 200 205

Leu Ile Val Leu Ser Gln His Leu Gly Lys Pro Pro Glu Val Thr Asn 210 215 220

Arg Tyr Leu Ser Gln Leu Lys Asp Ala His Arg Ser His Pro Phe Ile 225 230 235 240

Lys Glu Tyr Gln Ala Lys Glu Asn Asp Phe Asp Arg Leu Val Leu Gln 245 250 255

Tyr Ala Pro Ser Ala 260

<210> 506

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (40)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 506

Met Ala Pro Pro Ala Pro Gly Pro Ala Ser Gly Gly Ser Gly Glu Val

Asp Glu Leu Phe Asp Val Lys Asn Ala Phe Tyr Ile Gly Ser Tyr Gln 20 25 30

Gln Cys Ile Asn Glu Ala Xaa Xaa Val Lys Leu Ser Ser Pro Glu Arg 35 40 45

<210> 507

<211> 47

<212> PRT

<213> Homo sapiens

<400> 507

```
Asp Val Glu Arg Asp Val Phe Leu Tyr Arg Ala Tyr Leu Ala Gln Arg
1 5 10 15
```

Lys Phe Gly Val Val Leu Asp Glu Ile Lys Pro Ser Ser Ala Pro Glu . 20 25 30

Leu Gln Ala Val Arg Met Phe Ala Asp Tyr Leu Ala His Glu Ser 35 40 45

<210> 508

<211> 48

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 508

Arg Arg Asp Ser Ile Val Ala Glu Leu Asp Arg Glu Met Ser Arg Ser 1 5 10 15

Xaa Asp Val Thr Asn Thr Thr Phe Leu Leu Met Ala Ala Ser Ile Tyr 20 25 30

Leu His Asp Gln Asn Pro Asp Ala Ala Leu Arg Ala Leu His Gln Gly 35 40 45

<210> 509

<211> 47

<212> PRT

<213> Homo sapiens

<400> 509

Asp Ser Leu Glu Cys Thr Ala Met Thr Val Gln Ile Leu Leu Lys Leu
1 5 10 15

Asp Arg Leu Asp Leu Ala Arg Lys Glu Leu Lys Arg Met Gln Asp Leu 20 25 30

Asp Glu Asp Ala Thr Leu Thr Gln Leu Ala Thr Ala Trp Val Ser 35 40 45

<210> 510

<211> 47

<212> PRT

<213> Homo sapiens

<400> 510

Leu Ala Thr Gly Gly Glu Lys Leu Gln Asp Ala Tyr Tyr Ile Phe Gln 1 5 10

Glu Met Ala Asp Lys Cys Ser Pro Thr Leu Leu Leu Leu Asn Gly Gln
20 . 25 30

Ala Ala Cys His Met Ala Gln Gly Arg Trp Glu Ala Ala Glu Gly 35 40 45

<210> 511

<211> 48

<212> PRT

<213> Homo sapiens

<400> 511

Leu Leu Gln Glu Ala Leu Asp Lys Asp Ser Gly Tyr Pro Glu Thr Leu
1 5 10 15

Val Asn Leu Ile Val Leu Ser Gln His Leu Gly Lys Pro Pro Glu Val 20 25 30

Thr Asn Arg Tyr Leu Ser Gln Leu Lys Asp Ala His Arg Ser His Pro 35 40 45

<210> 512

<211> 32

<212> PRT

<213> Homo sapiens

<400> 512

Phe Ile Lys Glu Tyr Gln Ala Lys Glu Asn Asp Phe Asp Arg Leu Val 1 5 10 15

Leu Gln Tyr Ala Pro Ser Ala Glu Ala Gly Pro Glu Leu Ser Gly Pro 20 25 30

<210> 513

<211> 47

<212> PRT

<213> Homo sapiens

<400> 513

Arg Asp Val Glu Arg Asp Val Phe Leu Tyr Arg Ala Tyr Leu Ala Gln
1 5 10 15

Arg Lys Phe Gly Val Val Leu Asp Glu Ile Lys Pro Ser Ser Ala Pro 20 25 30

Glu Leu Gln Ala Val Arg Met Phe Ala Asp Tyr Leu Ala His Glu 35 40 45

```
10> 514
  11> 48
  :12> PRT
  :13> Homo sapiens
  :20>
  121> SITE
  !22> (18)
  23> Xaa equals any of the naturally occurring L-amino acids
  100> 514
  er Arg Arg Asp Ser Ile Val Ala Glu Leu Asp Arg Glu Met Ser Arg
                                      10
  er Xaa Asp Val Thr Asn Thr Thr Phe Leu Leu Met Ala Ala Ser Ile
              20
  yr Leu His Asp Gln Asn Pro Asp Ala Ala Leu Arg Ala Leu His Gln
                                                  45
                              40
į 210> 515
  211> 47

    212> PRT

213> Homo sapiens
 :ly Asp Ser Leu Glu Cys Thr Ala Met Thr Val Gln Ile Leu Leu Lys
                                     10
 eu Asp Arg Leu Asp Leu Ala Arg Lys Glu Leu Lys Arg Met Gln Asp
       . 20
 Leu Asp Glu Asp Ala Thr Leu Thr Gln Leu Ala Thr Ala Trp Val
                              40
 <210> 516
 <211> 47
 <212> PRT
 <213> Homo sapiens
 <400> 516
 Ser Leu Ala Thr Gly Gly Glu Lys Leu Gln Asp Ala Tyr Tyr Ile Phe
                                      10
 Gln Glu Met Ala Asp Lys Cys Ser Pro Thr Leu Leu Leu Asn Gly
                                  25
 Gln Ala Ala Cys His Met Ala Gln Gly Arg Trp Glu Ala Ala Glu
                              40
```

<210> 517 *

<222> (4)

```
<211> 38
<212> PRT
<213> Homo sapiens
<400> 517
Gly Leu Leu Gln Glu Ala Leu Asp Lys Asp Ser Gly Tyr Pro Glu Thr
                5
                                    10
Leu Val Asn Leu Ile Val Leu Ser Gln His Leu Gly Lys Pro Pro Glu
                                25
Val Thr Asn Arg Tyr Leu
        35
<210> 518
<211> 34
<212> PRT
<213> Homo sapiens
<400> 518
Ser Gln Leu Lys Asp Ala His Arg Ser His Pro Phe Ile Lys Glu Tyr
                                    10
        5
Gln Ala Lys Glu Asn Asp Phe Asp Arg Leu Val Leu Gln Tyr Ala Pro
            20
Ser Ala
<210> 519
<211> 62
<212> PRT
<213> Homo sapiens
<400> 519
Asn Arg Tyr Tyr Arg Glu Ser Trp Ser Leu Gln Val Pro Val Arg Asn
                                    10
Ser Gly Ser Thr His Ala Ser Glu Arg Asn Gly Ala Ser Gly Pro Arg
                                25
Pro Gly Leu Arg Arg Leu Arg Gly Gly Arg Arg Ala Val Arg Arg Lys
         35
Glu Arg Leu Leu His Arg Gln Leu Pro Ala Val His Lys Arg
<210> 520
<211> 66
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
```

```
<223> Xaa equals any of the naturally occurring L-amino acids
Ala Pro Gly Xaa Gly Trp Arg Gly Ser Leu Gly Glu Pro Pro Pro
                                    10
Pro Arg Ala Ser Leu Ser Ser Asp Thr Ser Ala Leu Ser Tyr Asp Ser
                                25
Val Lys Tyr Thr Leu Val Val Asp Glu His Ala Gln Leu Glu Leu Val
         35
Ser Leu Arg Arg Ala Ser Glu Thr Thr Val Thr Arg Val Thr Leu Pro
                                             60
                         55
Pro Ser
 65
<210> 521
<211> 30
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 521
Ala Pro Gly Xaa Gly Trp Arg Gly Ser Leu Gly Glu Pro Pro Pro
Pro Arg Ala Ser Leu Ser Ser Asp Thr Ser Ala Leu Ser Tyr
             20
<210> 522
<211> 36
<212> PRT
<213> Homo sapiens
<400> 522
Asp Ser Val Lys Tyr Thr Leu Val Val Asp Glu His Ala Gln Leu Glu
                 5
Leu Val Ser Leu Arg Arg Ala Ser Glu Thr Thr Val Thr Arg Val Thr
                                                      30
                                  25
 Leu Pro Pro Ser
         35
 <210> 523
 <211> 156
 <212> PRT
 <213> Homo sapiens
```

<400> 523

Met Lys Ala Ile Gly Ile Glu Pro Ser Leu Ala Thr Tyr His His Ile 1 5 10 15

Ile Arg Leu Phe Asp Gln Pro Gly Asp Pro Leu Lys Arg Ser Ser Phe 20 25 30

Ile Ile Tyr Asp Ile Met Asn Glu Leu Met Gly Lys Arg Phe Ser Pro 35 40 45

Lys Asp Pro Asp Asp Asp Lys Phe Phe Gln Ser Ala Met Ser Ile Cys 50 55 60

Ser Ser Leu Arg Asp Leu Glu Leu Ala Tyr Gln Val His Gly Leu Leu 65 70 75 80

Lys Thr Gly Asp Asn Trp Lys Phe Ile Gly Pro Asp Gln His Arg Asn 85 90 95

Phe Tyr Tyr Ser Lys Phe Phe Asp Leu Ile Cys Leu Met Glu Gln Ile 100 105 110

Asp Val Thr Leu Lys Trp Tyr Glu Asp Leu Ile Pro Ser Ala Tyr Phe 115 120 125

Pro His Ser Gln Thr Met Ile His Leu Leu Gln Ala Leu Asp Val Ala 130 135 140

Asn Arg Leu Glu Val Ile Pro Lys Ile Trp Glu Arg 145 150 155

<210> 524

<211> 176

<212> PRT

<213> Homo sapiens

<400> 524

Lys Asp Ser Lys Glu Tyr Gly His Thr Phe Arg Ser Asp Leu Arg Glu
1 5 10 15

Glu Ile Leu Met Leu Met Ala Arg Asp Lys His Pro Pro Glu Leu Gln 20 25 30

Val Ala Phe Ala Asp Cys Ala Ala Asp Ile Lys Ser Ala Tyr Glu Ser 35 40 45

Gln Pro Ile Arg Gln Thr Ala Gln Asp Trp Pro Ala Thr Ser Leu Asn 50 55 60

Cys Ile Ala Ile Leu Phe Leu Arg Ala Gly Arg Thr Gln Glu Ala Trp 65 70 . 75 80

Lys Met Leu Gly Leu Phe Arg Lys His Asn Lys Ile Pro Arg Ser Glu 85 90 95

Leu Leu Asn Glu Leu Met Asp Ser Ala Lys Val Ser Asn Ser Pro Ser 100 105

Gln Ala Ile Glu Val Val Glu Leu Ala Ser Ala Phe Ser Leu Pro Ile 115 120 125

Cys Glu Gly Leu Thr Gln Arg Val Met Ser Asp Phe Ala Ile Asn Gln 130 135 140

Glu Gln Lys Glu Ala Leu Ser Asn Leu Thr Ala Leu Thr Ser Asp Ser 145 150 155 160

Asp Thr Asp Ser Ser Ser Asp Ser Asp Ser Asp Thr Ser Glu Gly Lys
165 170 175

<210> 525

<211> 49

<212> PRT

<213> Homo sapiens

<400> 525

Met Lys Ala Ile Gly Ile Glu Pro Ser Leu Ala Thr Tyr His His Ile 1 5 10 15

Ile Arg Leu Phe Asp Gln Pro Gly Asp Pro Leu Lys Arg Ser Ser Phe 20 25 30

Ile Ile Tyr Asp Ile Met Asn Glu Leu Met Gly Lys Arg Phe Ser Pro 35 40 45

Lys

<210> 526

<211> 49

<212> PRT

<213> Homo sapiens

<400> 526

Asp Pro Asp Asp Lys Phe Phe Gln Ser Ala Met Ser Ile Cys Ser 1 5 10 15

Ser Leu Arg Asp Leu Glu Leu Ala Tyr Gln Val His Gly Leu Leu Lys 20 25 30

Thr Gly Asp Asn Trp Lys Phe Ile Gly Pro Asp Gln His Arg Asn Phe 35 40 45

Tyr

<210> 527

<211> 28

<212> PRT

```
<213> Homo sapiens
```

<400> 527

Tyr Ser Lys Phe Phe Asp Leu Ile Cys Leu Met Glu Gln Ile Asp Val 1 5 10 15

Thr Leu Lys Trp Tyr Glu Asp Leu Ile Pro Ser Ala 20 25

<210> 528

<211> 30

<212> PRT

<213> Homo sapiens

<400> 528

Tyr Phe Pro His Ser Gln Thr Met Ile His Leu Leu Gln Ala Leu Asp 1 10 15

Val Ala Asn Arg Leu Glu Val Ile Pro Lys Ile Trp Glu Arg 20 25 30

<210> 529

<211> 46

<212> PRT

<213> Homo sapiens

<400> 529

Lys Asp Ser Lys Glu Tyr Gly His Thr Phe Arg Ser Asp Leu Arg Glu
1 10 15

Glu Ile Leu Met Leu Met Ala Arg Asp Lys His Pro Pro Glu Leu Gln
20 25 30

Val Ala Phe Ala Asp Cys Ala Ala Asp Ile Lys Ser Ala Tyr
35 40 45

<210> 530

<211> 50

<212> PRT

<213> Homo sapiens

<400> 530

Glu Ser Gln Pro Ile Arg Gln Thr Ala Gln Asp Trp Pro Ala Thr Ser 1 5 10 15

Leu Asn Cys Ile Ala Ile Leu Phe Leu Arg Ala Gly Arg Thr Gln Glu 20 25 30

Ala Trp Lys Met Leu Gly Leu Phe Arg Lys His Asn Lys Ile Pro Arg 35 40 45

Ser Glu

```
<210> 531
<211> 47
<212> PRT
<213> Homo sapiens
<400> 531
Leu Leu Asn Glu Leu Met Asp Ser Ala Lys Val Ser Asn Ser Pro Ser
                  5
                                     10
Gln Ala Ile Glu Val Val Glu Leu Ala Ser Ala Phe Ser Leu Pro. Ile
             20
                                 25
Cys Glu Gly Leu Thr Gln Arg Val Met Ser Asp Phe Ala Ile Asn
                             40
<210> 532
<211> 33
<212> PRT
<213> Homo sapiens
<400> 532
Gln Glu Gln Lys Glu Ala Leu Ser Asn Leu Thr Ala Leu Thr Ser Asp
                                     10
Ser Asp Thr Asp Ser Ser Ser Asp Ser Asp Ser Asp Thr Ser Glu Gly
                            . . 25
Lys
<210> 533
<211> 324
<212> PRT
<213> Homo sapiens
<400> 533
Met Ser Ser Asp Asn Glu Ser Asp Ile Glu Asp Glu Asp Leu Lys Leu
                                                         15
                  5
                                     10
Glu Leu Arg Arg Leu Arg Asp Lys His Leu Lys Glu Ile Gln Asp Leu
Gln Ser Arg Gln Lys His Glu Ile Glu Ser Leu Tyr Thr Lys Leu Gly
                             40
Lys Val Pro Pro Ala Val Ile Ile Pro Pro Ala Ala Pro Leu Ser Gly
Arg Arg Arg Pro Thr Lys Ser Lys Gly Ser Lys Ser Ser Arg Ser
Ser Ser Leu Gly Asn Lys Ser Pro Gln Leu Ser Gly Asn Leu Ser Gly
                 85
                                     90
Gln Ser Ala Ala Ser Val Leu His Pro Gln Gln Thr Leu His Pro Pro
```

105

Gly Asn Ile Pro Glu Ser Gly Gln Asn Gln Leu Leu Gln Pro Leu Lys 115 120 125

Pro Ser Pro Ser Ser Asp Asn Leu Tyr Ser Ala Phe Thr Ser Asp Gly 130 135 140

Ala Ile Ser Val Pro Ser Leu Ser Ala Pro Gly Gln Gly Thr Ser Ser 145 150 155 160

Thr Asn Thr Val Gly Ala Thr Val Asn Ser Gln Ala Ala Gln Ala Gln 165 170 175

Pro Pro Ala Met Thr Ser Ser Arg Lys Gly Thr Phe Thr Asp Asp Leu 180 185 190

His Lys Leu Val Asp Asn Trp Ala Arg Asp Ala Met Asn Leu Ser Gly
195 200 205

Arg Arg Gly Ser Lys Gly His Met Asn Tyr Glu Gly Pro Gly Met Ala 210 215 220

Arg Lys Phe Ser Ala Pro Gly Gln Leu Cys Ile Ser Met Thr Ser Asn 225 230 235 240

Leu Gly Gly Ser Ala Pro Ile Ser Ala Ala Ser Ala Thr Ser Leu Gly 245 . 250 . 255

His Phe Thr Lys Ser Met Cys Pro Pro Gln Gln Tyr Gly Phe Pro Ala 260 265 270

Thr Pro Phe Gly Ala Gln Trp Ser Gly Thr Gly Gly Pro Ala Pro Gln 275 280 285

Pro Leu Gly Gln Phe Gln Pro Val Gly Thr Ala Ser Leu Gln Asn Phe 290 295 300

Asn Ile Ser Asn Leu Gln Lys Ser Ile Ser Asn Pro Pro Gly Ser Asn 305 310 315 320

Leu Arg Thr Thr

<210> 534

<211> 133

<212> PRT

<213> Homo sapiens

<400> 534

Ile Gln Asp Leu Gln Ser Arg Gln Lys His Glu Ile Glu Ser Leu Tyr
1 5 10 15

Thr Lys Leu Gly Lys Val Pro Pro Ala Val Ile Ile Pro Pro Ala Ala
20 25 30

Pro Leu Ser Gly Arg Arg Arg Pro Thr Lys Ser Lys Gly Ser Lys
35 40 45

Ser Ser Arg Ser Ser Ser Leu Gly Asn Lys Ser Pro Gln Leu Ser Gly 50 55 60

Asn Leu Ser Gly Gln Ser Ala Ala Ser Val Leu His Pro Gln Gln Thr 65 70 75 80

Leu His Pro Pro Gly Asn Ile Pro Glu Ser Gly Gln Asn Gln Leu Leu 85 90 95

Gln Pro Leu Lys Pro Ser Pro Ser Ser Asp Asn Leu Tyr Ser Ala Phe 100 105 110

Thr Ser Asp Gly Ala Ile Ser Val Pro Ser Leu Ser Ala Pro Gly Gln
115 120 125

Gly Thr Ser Ser Thr 130

<210> 535

<211> 53

<212> PRT

<213> Homo sapiens

<400> 535

Thr Ser Asp Gly Ala Ile Ser Val Pro Ser Leu Ser Ala Pro Gly Gln
1 5 10 15

Gly Thr Ser Ser Thr Asn Thr Val Gly Ala Thr Val Asn Ser Gln Ala 20 25 30

Ala Gln Ala Gln Pro Pro Ala Met Thr Ser Ser Arg Lys Gly Thr Phe 35 40 45

Thr Asp Asp Leu His

<210> 536

<211> 48

<212> PRT

<213> Homo sapiens

<400> 536

Lys Gly His Met Asn Tyr Glu Gly Pro Gly Met Ala Arg Lys Phe Ser 1 5 10 15

Ala Pro Gly Gln Leu Cys Ile Ser Met Thr Ser Asn Leu Gly Gly Ser 20 25 30

Ala Pro Ile Ser Ala Ala Ser Ala Thr Ser Leu Gly His Phe Thr Lys
35 40 45

```
<210> 537
<211> 31
<212> PRT
<213> Homo sapiens
<400> 537
Gln Pro Leu Lys Pro Ser Pro Ser Ser Asp Asn Leu Tyr Ser Ala Phe
                   10 15
       5
Thr Ser Asp Gly Ala Ile Ser Val Pro Ser Leu Ser Ala Pro Gly
            20
                               25
<210> 538
<211> 51
<212> PRT
<213> Homo sapiens
<400> 538
Met Ser Ser Asp Asn Glu Ser Asp Ile Glu Asp Glu Asp Leu Lys Leu
Glu Leu Arg Arg Leu Arg Asp Lys His Leu Lys Glu Ile Gln Asp Leu
                              25
            20
Gln Ser Arg Gln Lys His Glu Ile Glu Ser Leu Tyr Thr Lys Leu Gly
                           40
Lys Val Pro
     50
<210> 539
<211> 47
<212> PRT
<213> Homo sapiens
<400> 539
Pro Ala Val Ile Ile Pro Pro Ala Ala Pro Leu Ser Gly Arg Arg Arg
                           10 、
Arg Pro Thr Lys Ser Lys Gly Ser Lys Ser Ser Arg Ser Ser Ser Leu
             20
                               2.5
Gly Asn Lys Ser Pro Gln Leu Ser Gly Asn Leu Ser Gly Gln Ser
                                              45
                            40
<210> 540
<211> 50
<212> PRT
<213> Homo sapiens
Ala Ala Ser Val Leu His Pro Gln Gln Thr Leu His Pro Pro Gly Asn
                                   10
Ile Pro Glu Ser Gly Gln Asn Gln Leu Leu Gln Pro Leu Lys Pro Ser
```

Pro Ser Ser Asp Asn Leu Tyr Ser Ala Phe Thr Ser Asp Gly Ala Ile 40

<210> 541 <211> 44

<213> Homo sapiens

Pro Ser Leu Ser Ala Pro Gly Gln Gly Thr Ser Ser Thr Asn Thr Val 5 10

Gly Ala Thr Val Asn Ser Gln Ala Ala Gln Ala Gln Pro Pro Ala Met 25

Thr Ser Ser Arg Lys Gly Thr Phe Thr Asp Asp Leu 35

<210> 542 <211> 46 <212> PRT

<213> Homo sapiens

<400> 542

His Lys Leu Val Asp Asn Trp Ala Arg Asp Ala Met Asn Leu Ser Gly 10

Arg Arg Gly Ser Lys Gly His Met Asn Tyr Glu Gly Pro Gly Met Ala 20

Arg Lys Phe Ser Ala Pro Gly Gln Leu Cys Ile Ser Met Thr 40

<210> 543 <211> 46

<212> PRT

<213> Homo sapiens

Ser Asn Leu Gly Gly Ser Ala Pro Ile Ser Ala Ala Ser Ala Thr Ser

Leu Gly His Phe Thr Lys Ser Met Cys Pro Pro Gln Gln Tyr Gly Phe 25

Pro Ala Thr Pro Phe Gly Ala Gln Trp Ser Gly Thr Gly Gly 40

<210> .544

```
<211> 40
<212> PRT
<213> Homo sapiens
<400> 544
Pro Ala Pro Gln Pro Leu Gly Gln Phe Gln Pro Val Gly Thr Ala Ser
                            10
Leu Gln Asn Phe Asn Ile Ser Asn Leu Gln Lys Ser Ile Ser Asn Pro
                                25
             20
Pro Gly Ser Asn Leu Arg Thr Thr
<210> 545
<211> 57
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (10)
<223> Kaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 545
Val Arg Val Ala Ala Ala Glu Ser Met Xaa Leu Leu Leu Glu Cys Ala
                                    10
Xaa Val Arg Gly Pro Glu Tyr Leu Thr Gln Met Trp His Phe Met Cys
        . 20
Asp Ala Leu Ile Lys Ala Ile Gly Thr Glu Pro Asp Ser Asp Val Leu
                            40
Ser Glu Ile Met His Ser Phe Ala Lys
<210> 546
<211> 85
<212> PRT
<213> Homo sapiens
<400> 546
Met Glu Ile Asn Asn Gln Asn Cys Phe Ile Val Ile Asp Leu Val Arg
                                    10
Thr Val Met Glu Asn Gly Val Glu Gly Leu Leu Ile Phe Gly Ala Phe
             20
                                 25
Leu Pro Glu Ser Trp Leu Ile Gly Val Arg Cys Ser Ser Glu Pro Pro
```

<212> PRT

<213> Homo sapiens

```
Lys Ala Leu Leu Leu Ile Leu Ala His Ser Gln Lys Arg Arg Leu Asp
     50
                        55
Gly Trp Ser Phe Ile Arg His Leu Arg Val His Tyr Cys Val Ser Leu
                                        75
Thr Ile His Phe Ser
<210> 547
<211> 100
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 547
Gly Gly Arg Glu Ala Asn Lys Xaa Phe Phe Ile Glu Ser Cys Ile Ala
                                    10
Leu Phe Val Ser Phe Ile Ile Asn Val Phe Val Val Ser Val Phe Ala
                                 25
Glu Xaa Phe Phe Gly Xaa Thr Asn Glu Gln Val Val Glu Val Cys Thr
         35
Asn Thr Ser Ser Pro His Ala Gly Leu Phe Pro Lys Asp Asn Ser Thr
                                             60 ·
Leu Ala Val Asp Ile Tyr Lys Gly Gly Val Val Leu Gly Cys Tyr Phe
Gly Pro Ala Ala Leu Tyr Ile Trp Ala Val Gly Ile Leu Ala Ala Gly
                                     90.
                85
Gln Ser Ser Thr
            100
<210> 548
<211> 45
```

```
<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids.
<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 548
Gly Gly Arg Glu Ala Asn Lys Xaa Phe Phe Ile Glu Ser Cys Ile Ala
 1
                 5
                                     10
Leu Phe Val Ser Phe Ile Ile Asn Val Phe Val Val Ser Val Phe Ala
Glu Xaa Phe Phe Gly Xaa Thr Asn Glu Gln Val Val Glu
<210> 549
<211> 55
<212> PRT
<213> Homo sapiens
<400> 549
Val Cys Thr Asn Thr Ser Ser Pro His Ala Gly Leu Phe Pro Lys Asp
                                    10
Asn Ser Thr Leu Ala Val Asp Ile Tyr Lys Gly Gly Val Val Leu Gly
             20
                                 25
Cys Tyr Phe Gly Pro Ala Ala Leu Tyr Ile Trp Ala Val Gly Ile Leu
Ala Ala Gly Gln Ser Ser Thr
    50
                         55
<210> 550
<211> 20
<212> PRT
<213> Homo sapiens
<400> 550
Gln Asp Lys His Ala Glu Glu Val Arg Lys Asn Lys Glu Leu Lys Glu
                                     10
Glu Ala Ser Arg
             20
```

```
<210> 551
<211> 92
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (16)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (36)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 551
Gln Gln Asp Leu Ser Pro Trp Ala Ala Pro Val Gly Cys Pro Leu Xaa
Xaa Ala Ser Xaa Thr Cys His Xaa Leu Pro Leu Ser Gly Cys Leu Arg
             20
Arg Gln Ser Xaa Ser Leu Pro Val Val Ala Xaa Leu Cys Phe Trp Phe
Ser Cys Pro Leu Ala Ser Leu Phe Val Pro Gly Gln Pro Cys Val Thr
                         55
Cys Pro Phe Pro Ser Leu Pro Phe Gln Asp Lys His Ala Glu Glu Val
 65
                     70
Arg Lys Asn Lys Glu Leu Lys Glu Glu Ala Ser Arg
```

<210> 552 <211> 37

```
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 552
Pro Thr Arg Cys Cys Thr Thr Gln Pro Cys Arg Ser Ser Ala Arg Arg
Pro Cys Trp Val Pro Met Val Pro Ser Pro Glu Gly Arg Glu Xaa Gln
Pro Thr Cys Pro Ser
         35
<210> 553
<211> 363
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (68)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (124)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (211)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 553
Met Lys Arg Ser Leu Asn Glu Asn Ser Ala Arg Ser Thr Ala Gly Cys
                   5
Leu Pro Val Pro Leu Phe Asn Gln Lys Lys Arg Asn Arg Gln Pro Leu
Thr Ser Asn Pro Leu Lys Asp Asp Ser Gly Ile Ser Thr Pro Ser Asp
Asn Tyr Asp Phe Pro Pro Leu Pro Thr Asp Trp Ala Trp Glu Ala Val
     50
Asn Pro Glu Xaa Ala Pro Val Met Lys Thr Val Asp Thr Gly Gln Ile
                                          75
                     70
Pro His Ser Val Ser Arg Pro Leu Arg Ser Gln Asp Ser Val Phe Asn
```

Ser Ile Gln Ser Asn Thr Gly Arg Ser Gln Gly Gly Trp Ser Tyr Arg 100 105 110

Asp Gly Asn Lys Asn Thr Ser Leu Lys Thr Trp Xaa Lys Asn Asp Phe 115 120 125

Lys Pro Gln Cys Lys Arg Thr Asn Leu Val Ala Asn Asp Gly Lys Asn 130 135 140

Ser Cys Pro Met Ser Ser Gly Ala Gln Gln Gln Lys Gln Leu Arg Thr 145 150 155 160

Pro Glu Pro Pro Asn Leu Ser Arg Asn Lys Glu Thr Glu Leu Arg 165 170 175

Gln Thr His Ser Ser Lys Ile Ser Gly Cys Thr Met Arg Gly Leu Asp . 180 185 190

Lys Asn Ser Ala Leu Gln Thr Leu Lys Pro Asn Phe Gln Gln Asn Gln
195 200 205

Tyr Lys Xaa Gln Met Leu Asp Asp Ile Pro Glu Asp Asn Thr Leu Lys 210 215 220

Glu Thr Ser Leu Tyr Gln Leu Gln Phe Lys Glu Lys Ala Ser Ser Leu 225 230 235

Arg Ile Ile Ser Ala Val Ile Glu Ser Met Lys Tyr Trp Arg Glu His
245 250 255

Ala Gln Lys Thr Val Leu Leu Phe Glu Val Leu Ala Val Leu Asp Ser 260 265 270

Ala Val Thr Pro Gly Pro Tyr Tyr Ser Lys Thr Phe Leu Met Arg Asp 275 280 285

Gly Lys Asn Thr Leu Pro Cys Val Phe Tyr Glu Ile Asp Arg Glu Leu 290 295 300

Pro Arg Leu Ile Arg Gly Arg Val His Arg Cys Val Gly Asn Tyr Asp 305 310 315 320

Gln Lys Lys Asn Ile Phe Gln Cys Val Ser Val Arg Pro Ala Ser Val
325 330 335

Ser Glu Gln Lys Thr Phe Gln Ala Phe Val Lys Ile Ala Asp Val Glu 340 345 350

Met Gln Tyr Tyr Ile Asn Val Met Asn Glu Thr 355 360

<210> 554

<211> 45

<212> PRT

<213> Homo sapiens

```
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
Ser Gln Asp Ser Val Phe Asn Ser Ile Gln Ser Asn Thr Gly Arg Ser
Gln Gly Gly Trp Ser Tyr Arg Asp Gly Asn Lys Asn Thr Ser Leu Lys
                                 25
Thr Trp Xaa Lys Asn Asp Phe Lys Pro Gln Cys Lys Arg
                             40
         35
<210> 555
<211> 36
<212> PRT
<213> Homo sapiens
<400> 555
Asn Lys Glu Thr Glu Leu Leu Arg Gln Thr His Ser Ser Lys Ile Ser
.Gly Cys Thr Met Arg Gly Leu Asp Lys Asn Ser Ala Leu Gln Thr Leu
                                 25
             20
Lys Pro Asn Phe
        35
<210> 556
<211> 49
<212> PRT
<213> Homo sapiens
<400> 556
Ser Ser Leu Arg Ile Ile Ser Ala Val Ile Glu Ser Met Lys Tyr Trp
                                     10
Arg Glu His Ala Gln Lys Thr Val Leu Leu Phe Glu Val Leu Ala Val
                                 25
 Leu Asp Ser Ala Val Thr Pro Gly Pro Tyr Tyr Ser Lys Thr Phe Leu
   . 35
                             40
Met
<210> 557
<211> 42
<212> PRT
<213> Homo sapiens
<400> 557
Pro Arg Leu Ile Arg Gly Arg Val His Arg Cys Val Gly Asn Tyr Asp
                                     10
```

Gln Lys Lys Asn Ile Phe Gln Cys Val Ser Val Arg Pro Ala Ser Val

```
25
             20
Ser Glu Gln Lys Thr Phe Gln Ala Phe Val
<210> 558
<211> 370
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (320)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (334)
<223> Xaa equals any of the naturally occurring L-amino acids.
<220>
<221> SITE
<222> (337)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (339)
<223> Xaa equals-any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (341)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (345)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (350)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (352)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (355)
<223> Xaa equals any of the naturally occurring L-amino acids
```

<220>

<221> SITE

<222> (360)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 558

Gly Val Phe Arg Pro Cys Val Cys Gly Arg Pro Ala Ser Leu Thr Cys
1 5 10 15

Ser Pro Leu Asp Pro Glu Val Gly Pro Tyr Cys Asp Thr Pro Thr Met 20 25 30

Arg Thr Leu Phe Asn Leu Leu Trp Leu Ala Leu Ala Cys Ser Pro Val 35 40 45

His Thr Thr Leu Ser Lys Ser Asp Ala Lys Lys Ala Ala Ser Lys Thr 50 55 60

Leu Leu Glu Lys Ser Gln Phe Ser Asp Lys Pro Val Gln Asp Arg Gly 65 70 75 80

Leu Val Val Thr Asp Leu Lys Ala Glu Ser Val Val Leu Glu His Arg 85 90 95

Ser Tyr Cys Ser Ala Lys Ala Arg Asp Arg His Phe Ala Gly Asp Val 100 105 110

Leu Gly Tyr Val Thr Pro Trp Asn Ser His Gly Tyr Asp Val Thr Lys
115 120 125

Val Phe Gly Ser Lys Phe Thr Gln Ile Ser Pro Val Trp Leu Gln Leu 130 135 140

Lys Arg Arg Gly Arg Glu Met Phe Glu Val Thr Gly Leu His Asp Val 145 150 155 160

Asp Gln Gly Trp Met Arg Ala Val Arg Lys His Ala Lys Gly Leu His 165 170 175

Ile Val Pro Arg Leu Leu Phe Glu Asp Trp Thr Tyr Asp Asp Phe Arg 180 185 190

Asn Val Leu Asp Ser Glu Asp Glu Ile Glu Glu Leu Ser Lys Thr Val 195 200 205

Val Gln Val Ala Lys Asn Gln His Phe Asp Gly Phe Val Val Glu Val 210 215 220

Trp Asn Gln Leu Leu Ser Gln Lys Arg Val Gly Leu Ile His Met Leu 225 230 235 240

Thr His Leu Ala Glu Ala Leu His Gln Ala Arg Leu Leu Ala Leu Leu 245 250 255

Val Ile Pro Pro Ala Ile Thr Pro Gly Thr Asp Gln Leu Gly Met Phe
260 265 270

Thr His Lys Glu Phe Glu Gln Leu Ala Pro Val Leu Asp Gly Phe Ser

275 280 285

Leu Met Thr Tyr Asp Tyr Ser Thr Ala His Gln Pro Gly Pro Asn Ala 290 295 300

Pro Leu Ser Trp Val Arg Ala Cys Val Gln Val Leu Asp Pro Lys Xaa 305 310 315 . 320

Lys Trp Arg Thr Lys Ser Ser Trp Gly Ser Thr Ser Met Xaa Trp Thr
325 330 335

Xaa Arg Xaa Pro Xaa Asp Ala Arg Xaa Pro Val Val Gly Xaa Arg Xaa 340 345 350

Ile Gln Xaa Leu Lys Asp His Xaa Pro Arg Met Val Leu Asp Ser Lys 355 360 365

Pro Gln 370

<210> 559

<211> 39

<212> PRT

<213> Homo sapiens

<400> 559

Thr Cys Ser Pro Leu Asp Pro Glu Val Gly Pro Tyr Cys Asp Thr Pro 1 5 10 15

Thr Met Arg Thr Leu Phe Asn Leu Leu Trp Leu Ala Leu Ala Cys Ser 20 25 30

Pro Val His Thr Thr Leu Ser 35

<210> 560

<211> 54

<212> PRT

<213> Homo sapiens

<400> 560

Leu Val Val Thr Asp Leu Lys Ala Glu Ser Val Val Leu Glu His Arg
1 5 10 15

Ser Tyr Cys Ser Ala Lys Ala Arg Asp Arg His Phe Ala Gly Asp Val 20 25 30

Leu Gly Tyr Val Thr Pro Trp Asn Ser His Gly Tyr Asp Val Thr Lys
35 40 45

Val Phe Gly Ser Lys Phe 50

<210> 561

<211> 52

```
<212> PRT
<213> Homo sapiens
<400> 561
Arg Glu Met Phe Glu Val Thr Gly Leu His Asp Val Asp Gln Gly Trp
  1
                  5
                                    10
                                                          15
Met Arg Ala Val Arg Lys His Ala Lys Gly Leu His Ile Val Pro Arg
Leu Leu Phe Glu Asp Trp Thr Tyr Asp Asp Phe Arg Asn Val Leu Asp
Ser Glu Asp Glu
    50
<210> 562
<211> 56
<212> PRT
<213> Homo sapiens
<400> 562
His Phe Asp Gly Phe Val Val Glu Val Trp Asn Gln Leu Leu Ser Gln
                                    10
                 5
Lys Arg Val Gly Leu Ile His Met Leu Thr His Leu Ala Glu Ala Leu
His Gln Ala Arg Leu Leu Ala Leu Leu Val Ile Pro Pro Ala Ile Thr
                             40
Pro Gly Thr Asp Gln Leu Gly Met
<210> 563
<211> 47
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 563
Asp Gly Phe Ser Leu Met Thr Tyr Asp Tyr Ser Thr Ala His Gln Pro
                                     10
Gly Pro Asn Ala Pro Leu Ser Trp Val Arg Ala Cys Val Gln Val Leu
```

Asp Pro Lys Xaa Lys Trp Arg Thr Lys Ser Ser Trp Gly Ser Thr
35 40 45

<211> 152

<212> PRT

<213> Homo sapiens

<400> 564

Glu Arg Gly Val Ser Ile Asn Gln Phe Cys Lys Glu Phe Asn Glu Arg 1 5 10 15

Thr Lys Asp Ile Lys Glu Gly Ile Pro Leu Pro Thr Lys Ile Leu Val 20 25 30

Lys Pro Asp Arg Thr Phe Glu Ile Lys Ile Gly Gln Pro Thr Val Ser 35 40 45

Tyr Phe Leu Lys Ala Ala Ala Gly Ile Glu Lys Gly Ala Arg Gln Thr 50 55 60

Gly Lys Glu Val Ala Gly Leu Val Thr Leu Lys His Val Tyr Glu Ile 65 70 75 80

Ala Arg Ile Lys Ala Gln Asp Glu Ala Phe Ala Leu Gln Asp Val Pro 85 90 95

Leu Ser Ser Val Val Arg Ser Ile Ile Gly Ser Ala Arg Ser Leu Gly
100 105 110

Ile Arg Val Val Lys Asp Leu Ser Ser Glu Glu Leu Ala Ala Phe Gln 115 120 125

Lys Glu Arg Ala Ile Phe Leu Ala Ala Gln Lys Glu Ala Asp Leu Ala 130 140

Ala Gln Glu Glu Ala Ala Lys Lys 145 150

. <210> 565

<211> 51

<212> PRT

<213> Homo sapiens

<400> 565

Glu Arg Gly Val Ser Ile Asn Gln Phe Cys Lys Glu Phe Asn Glu Arg

1 5 10 15

Thr Lys Asp Ile Lys Glu Gly Ile Pro Leu Pro Thr Lys Ile Leu Val 20 25 30

Lys Pro Asp Arg Thr Phe Glu Ile Lys Ile Gly Gln Pro Thr Val Ser 35 40 45

Tyr Phe Leu 50

<210> 566

<211> 49

<212> PRT

<213> Homo sapiens

<400> 566

Lys Ala Ala Ala Gly Ile Glu Lys Gly Ala Arg Gln Thr Gly Lys Glu

1 5 10 15

Val Ala Gly Leu Val Thr Leu Lys His Val Tyr Glu Ile Ala Arg Ile 20 25 30

Lys Ala Gln Asp Glu Ala Phe Ala Leu Gln Asp Val Pro Leu Ser Ser 35 40 45

Val

. <210> 567

<211> 52

<212> PRT

<213> Homo sapiens .

<400> 567

Val Arg Ser Ile Ile Gly Ser Ala Arg Ser Leu Gly Ile Arg Val Val 1 5 10 15

Lys Asp Leu Ser Ser Glu Glu Leu Ala Ala Phe Gln Lys Glu Arg Ala 20 . 25 30

Ile Phe Leu Ala Ala Gl
n Lys Glu Ala Asp Leu Ala Ala Gl
n Glu Glu 35 40 45

Ala Ala Lys Lys 50

<210> 568

<211> 270

<212> PRT

<213> Homo sapiens

<400> 568

Ala Val Tyr Thr Tyr His Glu Lys Lys Lys Asp Thr Ala Ala Ser Gly
1 5 10 15

Tyr Gly Thr Gln Asn Ile Arg Leu Ser Arg Asp Ala Val Lys Asp Phe 20 25 30

Asp Cys Cys Cys Leu Ser Leu Gln Pro Cys His Asp Pro Val Val Thr

Pro Asp Gly Tyr Leu Tyr Glu Arg Glu Ala Ile Leu Glu Tyr Ile Leu 50 . 55 60

His Gln Lys Lys Glu Ile Ala Arg Gln Met Lys Ala Tyr Glu Lys Gln 65 70 75 80

Arg Gly Thr Arg Arg Glu Glu Gln Lys Glu Leu Gln Arg Ala Ala Ser 85 90 95 Gln Asp His Val Arg Gly Phe Leu Glu Lys Glu Ser Ala Ile Val Ser 100 105 110

Arg Pro Leu Asn Pro Phe Thr Ala Lys Ala Leu Ser Gly Thr Ser Pro 115 120 125

Asp Asp Val Gln Pro Gly Pro Ser Val Gly Pro Pro Ser Lys Asp Lys 130 140

Asp Lys Val Leu Pro Ser Phe Trp Ile Pro Ser Leu Thr Pro Glu Ala 145 150 155 160

Lys Ala Thr Lys Leu Glu Lys Pro Ser Arg Thr Val Thr Cys Pro Met 165 170 175

Ser Gly Lys Pro Leu Arg Met Ser Asp Leu Thr Pro Val His Phe Thr
180 185 190

Pro Leu Asp Ser Ser Val Asp Arg Val Gly Leu Ile Thr Arg Ser Glu 195 200 205

Arg Tyr Val Cys Ala Val Thr Arg Asp Ser Leu Ser Asn Ala Thr Pro 210 220

Cys Ala Val Leu Arg Pro Ser Gly Ala Val Val Thr Leu Glu Cys Val 225 230 235 240

Glu Lys Leu Ile Arg Lys Asp Met Val Asp Pro Val Thr Gly Asp Lys 245 250 255

Leu Thr Asp Arg Asp Ile Ile Val Leu Gln Arg Gly Gly Thr 260 265 270

<210> 569

<211> 54

<212> PRT

<213> Homo sapiens

<400> 569

Tyr Leu Tyr Glu Arg Glu Ala Ile Leu Glu Tyr Ile Leu His Gln Lys
1 5 10 15

Lys Glu Ile Ala Arg Gln Met Lys Ala Tyr Glu Lys Gln Arg Gly Thr 20 25 30

Arg Arg Glu Glu Gln Lys Glu Leu Gln Arg Ala Ala Ser Gln Asp His
35 40 45

Val Arg Gly Phe Leu Glu 50

<210> 570

<211> 64

<212> PRT

<213> Homo sapiens

<400> 570

Phe Thr Ala Lys Ala Leu Ser Gly Thr Ser Pro Asp Asp Val Gln Pro 1 5 10 15

Gly Pro Ser Val Gly Pro Pro Ser Lys Asp Lys Asp Lys Val Leu Pro 20 25 . 30

Ser Phe Trp Ile Pro Ser Leu Thr Pro Glu Ala Lys Ala Thr Lys Leu 35 40 45

Glu Lys Pro Ser Arg Thr Val Thr Cys Pro Met Ser Gly Lys Pro Leu
50 55 60

<210> 571

<211>. 56

<212> PRT

<213> Homo sapiens

<400> 571

Val His Phe Thr Pro Leu Asp Ser Ser Val Asp Arg Val Gly Leu Ile 1 5 10 15

Thr Arg Ser Glu Arg Tyr Val Cys Ala Val Thr Arg Asp Ser Leu Ser 20 25 30

Asn Ala Thr Pro Cys Ala Val Leu Arg Pro Ser Gly Ala Val Thr 35 40 45

Leu Glu Cys Val Glu Lys Leu Ile 50 55

<210> 572

<211> 66

<212> PRT

<213> Homo sapiens

<400> 572

Met Ser Asp Leu Thr Pro Val His Phe Thr Pro Leu Asp Ser Ser Val

1 5 10 15

Asp Arg Val Gly Leu Ile Thr Arg Ser Glu Arg Tyr Val Cys Ala Val 20 25 30

Thr Arg Asp Ser Leu Ser Asn Ala Thr Pro Cys Ala Val Leu Arg Pro 35 40 45

Ser Gly Ala Val Val Thr Leu Glu Cys Val Glu Lys Leu Ile Arg Lys
50 55 60

Asp Met 65

```
<210> 573
<211> 567
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (409)
<223> Xaa equals any of the naturally occurring L-amino acids
Met Asp Thr Ser Glu Asn Arg Pro Glu Asn Asp Val Pro Glu Pro Pro
                                     10
Met Pro Ile Ala Asp Gln Val Ser Asn Asp Asp Pro Glu Gly Ser
                                 25
Val Glu Asp Glu Glu Lys Lys Glu Ser Ser Leu Pro Lys Ser Phe Lys
Arg Lys Ile Ser Val Val Ser Ala Thr Lys Gly Val Pro Ala Gly Asn
                        55
Ser Asp Thr Glu Gly Gly Gln Pro Gly Arg Lys Arg Arg Trp Gly Ala
                     70
Ser Thr Ala Thr Thr Gln Lys Lys Pro Ser Ile Ser Ile Thr Thr Glu
                                    90 .
Ser Leu Lys Ser Leu Ile Pro Asp Ile Lys Pro Leu Ala Gly Gin Glu
                                105
            100
Ala Val Val Asp Leu His Ala Asp Asp Ser Arg Ile Ser Glu Asp Glu
                            120
Thr Glu Arg Asn Gly Asp Asp Gly Thr His Asp Lys Gly Leu Lys Ile
    130
                        135
Cys Arg Thr Val Thr Gln Val Val Pro Ala Glu Gly Gln Glu Asn Gly
                    150
Gln Arg Glu Glu Glu Glu Glu Lys Glu Pro Glu Ala Glu Pro Pro
                                    170
                165
Val Pro Pro Gln Val Ser Val Glu Val Ala Leu Pro Pro Pro Ala Glu
                                185
            180
His Glu Val Lys Lys Val Thr Leu Gly Asp Thr Leu Thr Arg Arg Ser
        195
                            200
Ile Ser Gln Gln Lys Ser Gly Val Ser Ile Thr Ile Asp Asp Pro Val
                        215
Arg Thr Ala Gln Val Pro Ser Pro Pro Arg Gly Lys Ile Ser Asn Ile
                                        235
```

Val His Ile Ser Asn Leu Val Arg Pro Phe Thr Leu Gly Gln Leu Lys

				245					250					255	
Glu	Leu	Leu	Gly 260	Arg	Thr	Gly	Thr	Leu 265	Val	Glu	Glu	Ala	Phe 270	Trp	Ile
qzA	Lys	Ile 275	Lys	Ser	His	Cys	Phe 280	Val	Thr	Tyr	Ser	Thr 285	Val	Glu	Glu
Ala	Val 290	Ala	Thr	Arg	Thr	Ala 295	Leu	His	Gly	Val	Lys 300	Trp	Pro	Gln	Ser
Asn 305	Pro	Lys	Phe	Leu	Cys 310	Ala	qzA	Tyr	Ala	Glu 315	Gln	Asp	Glu	Leu	Asp 320
Tyr	His	Arg	Gly	Leu 325	Leu	Val	Asp	Arg	Pro 330	Ser	Glu	Thr	Lys	Thr 335	Glu
Glu	Gln	Gly	Ile 340		Arg	Pro.	Leu	His 345	Pro	Pro	Pro	Pro	Pro 350	Pro	Val
Gln		Pro 355	Gln	His	Pro	Arg	Ala 360	Glu	Gln	Arg	Glu	Gln 365	Glu	Arg	Ala
Val	Arg 370	Glu	Gln	Trp	Ala	Glu 375	Arg	Glu	Arg	Glu	Met 380	Glu	Arg	Arg	Glu
Arg 385		Arg	Ser	Gĺu	Arg 390	Glu	Trp	Asp	Arg	Asp 395	Lys	Val	Arg	Glu	Gly 400
Pro	Arg	Ser	Arg	Ser 405	Arg	Ser	Arg	Xaa	Arg 410	Arg	Arg	Lys	Glu	Arg 415	Ala
Lys	Ser	Lys	Glu 420		Lys	Ser	Glu	Lys 425	Ľys	Glu	Lys	Ala	Gln 430	Glu	Glu
Pro	Pro	Ala 435		. Leu	. Leu	Asp	Asp 440	Lèu	Phe	Arg	Lys	Thr 445	Lys	Ala	Ala
Pro	450		e Tyr	Trp	Leu	Pro 455	Leu	Thr	Asp	Ser	Gln 460	Ile	[Val	Gln	Lys
Glu 465		Glu	ı Arg	g Ala	470	Arg	, Ala	Lys	Glu	475	Glu	. Lys	Arg	Arg	Lys 480
Glu	ı Glr	ı Glu	ı Glu	ı Glu 485		. Glr	Lys	: Glu	490	g Glu	Lys	Glu	. Ala	. Glu 495	Arg
Glu	ı Arç	g Ası	n Arg 500		n Leu	ı Glu	ı Arg	g Glu 505	Lys	arç	, Arg	g Glu	His 510	Ser	Arg
Glı	ı Arç	g Ası 51		g Glı	ı Arg	g Glu	1 Arg 520	g Glu	ı Arg	g Glu	ı Arg	3 Asg 529	Arg	g Gly	Asp
Ar	g As 53		g As	p Ar	g Glı	1 Arg	g Asp	o Arg	g Glı	ı Arç	g Gly 540	y Arg	g Glu	ı Arg	J Asp
Ar 54		g As	p Th	r Ly	s Arg		s Se	r Ar	g Sei	r Arg	g Sei	r Arq	g Sei	r Thi	560

```
Val Arg Asp Arg Gly Gly Arg
565
```

<210> 574

<211> 48

<212> PRT

<213> Homo sapiens

<400> 574

Glu Asn Asp Val Pro Glu Pro Pro Met Pro Ile Ala Asp Gln Val Ser 1 5 10 15

Asn Asp Asp Arg Pro Glu Gly Ser Val Glu Asp Glu Glu Lys Lys Glu 20 25 30

Ser Ser Leu Pro Lys Ser Phe Lys Arg Lys Ile Ser Val Val Ser Ala . 35 40 45

<210> 575

<211> 37

<212> PRT

<213> Homo sapiens

<400> 575

Val Asp Leu His Ala Asp Asp Ser Arg Ile Ser Glu Asp Glu Thr Glu

1 5 10 15

Arg Asn Gly Asp Asp Gly Thr His Asp Lys Gly Leu Lys Ile Cys Arg 20 25 30

Thr Val Thr Gln Val

<210> 576

<211> 55

<212> PRT

<213> Homo sapiens

<400> 576

Pro Gln Val Ser Val Glu Val Ala Leu Pro Pro Pro Ala Glu His Glu
1 5 10 15

Val Lys Lys Val Thr Leu Gly Asp Thr Leu Thr Arg Arg Ser Ìle Ser 20 25 30

Gln Gln Lys Ser Gly Val Ser Ile Thr Ile Asp Asp Pro Val Arg Thr
35 40 45

Ala Gln Val Pro Ser Pro Pro 50 55

```
<210> 577
 <211> 55
 <212> PRT
 <213> Homo sapiens
 <400> 577
 Leu Lys Glu Leu Leu Gly Arg Thr Gly Thr Leu Val Glu Glu Ala Phe
                                       10
 Trp Ile Asp Lys Ile Lys Ser His Cys Phe Val Thr Tyr Ser Thr Val
 Glu Glu Ala Val Ala Thr Arg Thr Ala Leu His Gly Val Lys Trp Pro
                              40
  Gln Ser Asn Pro Lys Phe Leu
      50
  <210> 578
  <211> 53
  <212> PRT
  <213> Homo sapiens
  <400> 578
  Val Asp Arg Pro Ser Glu Thr Lys Thr Glu Glu Gln Gly Ile Pro Arg
  Pro Leu His Pro Pro Pro Pro Pro Val Gln Pro Pro Gln His Pro
                                   25
  Arg Ala Glu Gln Arg Glu Gln Glu Arg Ala Val Arg Glu Gln Trp Ala
                               40
  Glu Arg Glu Arg Glu
       50
  <210> 579
  <211> 59
  <212> PRT
  <213> Homo sapiens
  <220>
  <221> SITE
  <222> (19)
  <223> Xaa equals any of the naturally occurring L-amino acids
  <400> 579
  Glu Trp Asp Arg Asp Lys Val Arg Glu Gly Pro Arg Ser Arg Ser Arg
  Ser Arg Xaa Arg Arg Arg Lys Glu Arg Ala Lys Ser Lys Glu Lys Lys
               20
  Ser Glu Lys Lys Glu Lys Ala Gln Glu Glu Pro Pro Ala Lys Leu Leu
```

Asp Asp Leu Phe Arg Lys Thr Lys Ala Ala Pro 50 55

<210> 580

<211> 64

<212> PRT

<213> Homo sapiens

<400> 580

Pro Leu Thr Asp Ser Gln Ile Val Gln Lys Glu Ala Glu Arg Ala Glu 1 5 10 15

Arg Ala Lys Glu Arg Glu Lys Arg Arg Lys Glu Gln Glu Glu Glu Glu 20 25 30

Gln Lys Glu Arg Glu Lys Glu Ala Glu Arg Glu Arg Asn Arg Gln Leu 35 40 45

Glu Arg Glu Lys Arg Arg Glu His Ser Arg Glu Arg Asp Arg Glu Arg 50 55 60

<210> 581

<211> 32

<212> PRT

<213> Homo sapiens

<400> 581

Leu Asp Val Pro Leu Ala Ser Arg Ser Pro Glu Phe Pro Leu Pro Leu

1 5 10 15

Met Thr Gln Ser Glu Leu Pro Arg Cys Pro Pro His Pro Gly Ala Arg 20 25 30

<210> 582

<211> 15

<212> PRT

<213> Homo sapiens

<400> 582

Leu Ala Thr Leu Ser Ile Ser Pro Ile Trp Ser Val Leu Ser Leu
1 5 10 15

<210> 583

<211> 51

<212> PRT

<213> Homo sapiens

<400> 583

Gly Cys Asp Ser Cys Pro Pro His Leu Pro Arg Glu Ala Phe Ala Gln
1 5 10 15

Asp Thr Gln Ala Glu Gly Glu Cys Ser Ser Arg Ala Glu Arg Ala Asp 20 25 30

Met Cys Pro Asp Ala Pro Pro Ser Gln Glu Val Pro Glu Gly Pro Gly 35 40 45

Ala Ala Pro 50

. <210> 584

<211> 91

<212> PRT

<213> Homo sapiens

<400> 584

Arg Gly Trp Leu Pro Ser Ser Cys Leu Ser Cys Ala Leu Arg Val Cys
1 5 10 15

Pro Asp Ser Ser Ser Thr Gln Ala Met Gly Met Leu Leu Ala Phe Trp
20 25 30

Leu Pro Gly Ala Ser Trp Gln Glu Ala Ala Arg Gly Gln Tyr Ser Glu
35 40 45

Asp Glu Asp Thr Asp Thr Asp Glu Tyr Lys Glu Ala Lys Ala Ser Ile 50 60

Asn Pro Val Thr Gly Arg Val Glu Glu Lys Pro Pro Asn Pro Met Glu 65 70 75 80

Gly Met Thr Glu Glu Gln Lys Glu His Glu Ala 85 90

<210> 585

<211> 27

<212> PRT

<213> Homo sapiens

<400> 585

Thr Gln Ala Met Gly Met Leu Leu Ala Phe Trp Leu Pro Gly Ala Ser

Trp Gln Glu Ala Ala Arg Gly Gln Tyr Ser Glu 20 25

<210> 586

<211> 50

<212> PRT

<213> Homo sapiens

<400> 586

```
Pro Gln Leu Pro Ser Cys Gly Arg Pro Trp Pro Gly Thr Ala Ser Val
                                     10
Phe Gln Ser His Thr Gln Gly Pro Arg Glu Asp Pro Asp Pro Cys Arg
Ala Gln Gly Ser Ala Gly Thr His Cys Pro Ile Ser Leu Ser Pro Pro
Arg Gln
     50
<210> 587
<211> 103
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (23)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 587
Lys Thr His Pro Arg Ala Leu Trp Ser Ala Gly Pro Ser Cys Ala Leu
Cys Pro Gly Gly Ser Gly Xaa Thr Ser Pro Pro Gln Gly Ala Pro Arg
Gly Ile Xaa Trp Asp Arg Cys Pro Gln Ile Gln Val Leu Glu Gly Gln
Arg Val Arg Phe Pro Ser Gln Pro Gln His Pro Ser His Leu Ala Pro
                         55
Arg Gly Gly Cys Gly Trp Arg Pro Asp Ser Arg Pro Leu Leu Pro Thr
Pro Ser Gly Leu Ser Ser Phe Phe Pro Leu Asp Ala Gln Cys Trp Pro
Trp Arg Thr Val Ser Trp Arg
            100
<210> 588
<211> 200
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
```

```
<222> (25)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (40)
<223> Kaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (42)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (174)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (186)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 588
Ala Gly Ala Pro Gly Gln Gln Ala Arg Leu Gln Tyr Leu Leu Ser Phe
Gln Gly Glu Gly Ala Pro His Glu Xaa Gly Ala Thr Gly Glu Gly Gly
Asp Gly Ala Trp Glu Ala Cys Xaa Cys Xaa Arg Cys Leu Leu Asn Trp
Gln Ala Gly Gly Trp Gly Leu Gln Leu Ser Leu Met Trp Leu His Arg
                         55
Gly Pro Leu Arg Pro Pro Gly Val Arg Trp Thr Pro Trp Ala Phe Leu
Glu Ala Cys Ser Trp Gly Pro Ala Leu Ser Leu Leu Gly Ser Gly His
                                    90
Ser Leu Pro Gly Thr His Glu Gln Ala Ala Trp Ser Arg Gly Cys Gly
            100
                                105
Gln His Gly Gln Ser Pro Thr Gln Lys Cys Lys Ser Ser Lys Glu Pro
                            120
Leu Ala Gln Ala Pro Pro Trp Asp Ser Pro Ala Ala Pro Pro His Gln
    130
Gly Phe Ala Asp Val Leu Glu Arg Pro Thr Leu Glu Pro Phe Gly Val
                                       155
145
                    150
Leu Ala Pro Pro Val Pro Ser Ala Leu Val Glu Ala Ala Xaa Gln Val
```

170

Leu Leu Arg Glu Pro Gln Gly Gly Phe Kaa Gly Thr Ala Ala His Arg

Ser Arg Cys Trp Lys Gly Ser Gly 195 200

```
<210> 589
```

<211> 145

<212> PRT

<213> Homo sapiens

.<220>

<221> SITE

<222> (44)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

IMUVU

<221> SITE

<222> (125)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (142)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 589

Met Gln Leu Leu Phe Leu Leu Pro His Pro Ser Pro Gln Leu His Ala 1 5 10 15

Ser Leu Pro His Ser Ala Ala Leu Pro Cys Pro Arg Gly Glu Ser Leu 20 25 $^{\circ}$ 30

Thr Thr Ala Ser Pro Ala Gly Ala Ala Gly Arg Xaa Asp Ala Val Pro 35 40 45

Arg Cys Arg His Gln Ala Gly Arg Gly Trp Val Pro Arg Gly Pro Cys 50 55 60

Glu Arg Gly Gly Gly Asp Arg Gly Lys Pro Arg Ala Val Ala Trp Asp
65 70 75 80

Xaa Gly Ser Leu Arg Trp Ala Val Trp Ser Ala Arg Ala Gly Gln Gly 85 90 95

Arg Ser Ser Glu Pro Ala Pro Leu Ala Ser Arg Arg Gly Tyr Ser Thr $100 \,$ $105 \,$ $110 \,$

Cys Cys Leu Ser Arg Gly Lys Gly Leu Pro Met Arg Xaa Gly Arg Arg 115 120 125

Gly Arg Gly Val Met Val Pro Gly Lys Pro Ala Cys Ala Xaa Gly Ala
130 135 140

```
Cys
 145
 <210> 590
 <211> 34
 <212> PRT
 <213> Homo sapiens
 <400> 590
 Gln His Pro Ser His Leu Ala Pro Arg Gly Gly Cys Gly Trp Arg Pro
 Asp Ser Arg Pro Leu Leu Pro Thr Pro Ser Gly Leu Ser Ser Phe Phe
                              25
         20
 Pro Leu
 <210> 591
<211> 30
 <212> PRT
 <213> Homo sapiens
 <400> 591
 Gly Val Arg Trp Thr Pro Trp Ala Phe Leu Glu Ala Cys Ser Trp Gly
                       10 15
  Pro Ala Leu Ser Leu Leu Gly Ser Gly His Ser Leu Pro Gly
                                25
             20
  <210> 592
  <211> 28
  <212> PRT
  <213> Homo sapiens
  <400> 592
  Trp Asp Ser Pro Ala Ala Pro Pro His Gln Gly Phe Ala Asp Val Leu
                        10
                  5
  Glu Arg Pro Thr Leu Glu Pro Phe Gly Val Leu Ala
              20
  <210> 593
  <211> 28
  <212> PRT
  <213> Homo sapiens
  <400> 593
  Arg Ser Ser Glu Pro Ala Pro Leu Ala Ser Arg Arg Gly Tyr Ser Thr
          5
  Cys Cys Leu Ser Arg Gly Lys Gly Leu Pro Met Arg
```

25

<210> 594 <211> 42

<212> PRT

<213> Homo sapiens

<400> 594

Pro Gly Phe Arg Gly Pro Ser Gly Ser Leu Gly Cys Ser Phe Phe Pro 1 5 10 15

Arg Ser Leu Gly Arg Val Leu Pro Pro Gly Cys Gln Arg Pro Gly Ala 20 25 30

His Ala Asp Ser Ser Pro Pro Pro Thr Pro 35 40

<210> 595

<211> 84

<212> PRT

<213> Homo sapiens

<400> 595

Glu Asp Leu Lys Lys Pro Asp Pro Ala Ser Leu Arg Ala Ala Ser Cys
1 5 10 15

Gly Glu Gly Lys Lys Arg Lys Ala Cys Lys Asn Cys Thr Cys Gly Leu 20 25 30

Ala Glu Glu Leu Glu Lys Glu Lys Ser Arg Glu Gln Met Ser Ser Gln
35 40 45

Pro Lys Ser Ala Cys Gly Asn Cys Tyr Leu Gly Asp Ala Phe Arg Cys 50 55 60

Ala Ser Cys Pro Tyr Leu Gly Met Pro Ala Phe Lys Pro Gly Glu Lys 65 70 75 80

Val Leu Leu Ser

<210> 596

<211> 90

<212> PRT

<213> Homo sapiens

<400> 596

Glu Asp Leu Lys Lys Pro Asp Pro Ala Ser Leu Arg Ala Ala Ser Cys
1 5 10 15

Gly Glu Gly Lys Lys Arg Lys Ala Cys Lys Asn Cys Thr Cys Gly Leu 20 25 30

Ala Glu Glu Leu Glu Lys Glu Lys Ser Arg Glu Gln Met Ser Ser Gln 35 40 45

```
Pro Lys Ser Ala Cys Gly Asn Cys Tyr Leu Gly Asp Ala Phe Arg Cys
            . 55
Ala Ser Cys Pro Tyr Leu Gly Met Pro Ala Phe Lys Pro Gly Glu Lys
                    70
Val Leu Leu Ser Asp Ser Asn Leu His Asp
                 85 -
<210> 597
 <211> 34
 <212> PRT
 <213> Homo sapiens
 Cys Gly Asn Cys Tyr Leu Gly Asp Ala Phe Arg Cys Ala Ser Cys Pro
 1
 Tyr Leu Gly Met Pro Ala Phe Lys Pro Gly Glu Lys Val Leu Leu Ser
              20 .
 Asp Ser
  <210> 598
  <211> 25
  <212> PRT
  <213> Homo sapiens
  Ser Cys Gly Glu Gly Lys Lys Arg Lys Ala Cys Lys Asn Cys Thr Cys
  Gly Leu Ala Glu Glu Leu Glu Lys Glu
               20
   <210> 599
   <211> 21
   <212> PRT
   <213> Homo sapiens
   Ser Gln Pro Lys Ser Ala Cys Gly Asn Cys Tyr Leu Gly Asp Ala Phe
    Arg Cys Ala Ser Cys
                20
    <210> 600
    <211> 17
    <212> PRT
    <213> Homo sapiens
    <400> 600
```

Arg Glu Ala Gly Gln Asn Ser Glu Arg Gln Tyr Val Ser Leu Ser Arg 1 Asp <210> 601 <211> 16 <212> PRT <213> Homo sapiens <400> 601 Cys Cys Cys Val Ser Lys Asp Gln Gly Ile Met Gly Pro Gly Phe Arg <210> 602 <211> 103 <212> PRT <213> Homo sapiens <400> 602 His Ser Val Thr Glu Leu Gln Thr Pro Ala Leu Ser Leu Ile Ser Ala 5 10 Met Leu Pro Pro Ser Cys Leu Ser Glu Leu Leu Val Tyr Ser Ile Leu 25 Cys Asp Thr Ser Gln Val Ala His Asn Leu Leu Arg Ala Pro Glu Asp Ser Leu Thr Gly Cys Cys Asp Asp Ile Gln Cys Pro Ser Ala Pro Phe His Pro Gln Pro His Leu Thr Val Ala Leu His Leu Cys Pro Val Val 70 65 Ile Tyr Val Asn Leu Gln Val Leu Asn Leu Leu His Ile Leu Thr Tyr 90 85 -Leu Glu Ile Leu His Val Leu 100 <210> 603 <211> 24 <212> PRT <213> Homo sapiens <400> 603 Leu Leu Val Tyr Ser Ile Leu Cys Asp Thr Ser Gln Val Ala His Asn 10

Leu Leu Arg Ala Pro Glu Asp Ser

20

```
<210> 604
<211> 26
<212> PRT
<213> Homo sapiens
```

<400> 604 Leu Thr Val Ala Leu His Leu Cys Pro Val Val Ile Tyr Val Asn Leu 10

Gln Val Leu Asn Leu Leu His Ile Leu Thr 20

```
<210> 605
<211> 55
<212> PRT
<213> Homo sapiens
```

Phe Phe Asn Ala Leu Tyr Val Phe Arg Lys Pro Gln Ala Ile Phe Asp 10

Ser Glu Lys Glu Asn Lys Arg Lys Asn Pro Thr Lys Tyr Asn Asn Pro 20 . 25

Leu Arg Tyr Ile Tyr Phe Lys Val Lys Leu Ile Phe Gln Phe Ile Pro

Leu Ala Asn Tyr Lys Ile Lys 50

<210> 606 <211> 90 <212> PRT <213> Homo sapiens

<400> 606 Glu Ser Ser Gly Gln Ala Arg Thr Leu Ala Asp Pro Gly Pro Gly Trp 10

Pro Arg Gln Gln Gly Met Cys Phe Gly Ser Leu Thr Gly Leu Ser Thr 25 20

Thr Pro His Gly Phe Leu Thr Val Ser Ala Glu Ala Asp Pro Arg Leu 40 35

Ile Glu Ser Leu Ser Gln Met Leu Ser Met Gly Phe Ser Asp Glu Gly 55 60

Gly Trp Leu Thr Arg Leu Leu Gln Thr Lys Asn Tyr Asp Ile Gly Ala 75 65

Ala Leu Asp Thr Ile Gln Tyr Ser Lys His 85

<400> 609

```
<210> 607
<211> 100
<212> PRT
<213> Homo sapiens
<400> 607
Tyr Ser Met Val Tyr Ile Tyr His Ile Phe Phe Ile His Ser Leu Leu
Asp Gly Gln Leu Gly Trp Phe His Ile Phe Ala Ile Val Ser Cys Ala
                                25
Ala Pro Asp Ile Ile Phe Asn Ser Phe Ala Phe Ser Thr Tyr Ile Ser
Lys Ser Cys Ser Phe Tyr Leu Gln Asn Val Ser Cys Ile His Ser Ser
                       55
                           60
Leu Ser Ile Phe Asn Leu Phe Gln Cys Pro Ile Ile Ser Cys Met Glu
Glu Cys Asn Asn Trp Leu Thr Gly Leu Phe Leu His Phe Lys Ile Lys
                                    90
                85
Arg Cys Asp Arg
           100
<210> 608
<211> 67
<212> PRT
<213> Homo sapiens
<400> 608
Leu Ser Pro Ser Pro Arg Cys Cys Pro Trp Ala Ser Leu Met Lys Ala
                                   10
Ala Gly Ser Pro Gly Ser Cys Arg Pro Arg Thr Met Thr Ser Glu Arg
                             25
Leu Trp Thr Pro Ser Ser Ile Gln Ser Ile Pro Arg Arg Cys Asp His
                            40 -
Phe Cys Pro Pro Leu Leu Arg Ala Pro Leu Leu Ser His Ser Cys Val
Lys Leu Ala
65
<210> 609
<211> 34
<212> PRT
<213> Homo sapiens
```

<220>

```
Gly Trp Pro Arg Gln Gln Gly Met Cys Phe Gly Ser Leu Thr Gly Leu
              .5
Ser Thr Thr Pro His Gly Phe Leu Thr Val Ser Ala Glu Ala Asp Pro
                              25
Arg Leu
<210> 610
<211> 33
<212> PRT
<213> Homo sapiens
<400> 610
Leu Gly Trp Phe His Ile Phe Ala Ile Val Ser Cys Ala Ala Pro Asp
                                 10
       5
Ile Ile Phe Asn Ser Phe Ala Phe Ser Thr Tyr Ile Ser Lys Ser Cys
                             25 ·
                                       30
           20
Ser
<210> 611
<211> 25
<212> PRT
<213> Homo sapiens
<400> 611
Ser Leu Ser Ile Phe Asn Leu Phe Gln Cys Pro Ile Ile Ser Cys Met
               5
                              10
1
Glu Glu Cys Asn Asn Trp Leu Thr Gly
    . 20
<210> 612
<211> 30
<212> PRT
<213> Homo sapiens
<400> 612
Leu Met Lys Ala Ala Gly Ser Pro Gly Ser Cys Arg Pro Arg Thr Met
                5
Thr Ser Glu Arg Leu Trp Thr Pro Ser Ser Ile Gln Ser Ile
                              25
            20
<210> 613
<211> 152
<212> PRT
<213> Homo sapiens
```

<221> SITE <222> (35) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (71) <223> Xaa equals any of the naturally occurring L-amino acids <400> 613 Ser Ser Ser Pro Arg Arg Pro Arg Glu Leu Leu Gly Ser Leu Lys Thr Pro Leu Val Arg Pro His Ser Ala Pro Leu Asp Leu Pro Gly Ser 20 Phe Cys Xaa His Thr Ala Asp Pro Met Gly Ala Leu His Thr Arg Phe Trp Gly Arg Gln Thr Trp Ile His Arg Lys Leu Arg Leu His Gly Thr 50 55 60 Ser Arg Leu Ala Ser Lys Xaa Gly Ile Gln Phe Leu Arg Asn Pro Ser Lys Thr His Thr Pro Arg Asp Ala Ala Phe Arg Asp Pro Gly Gln Thr 90 Pro Asp Pro Gln Ser Leu Gln Ala Pro Ser Pro Ser Lys Cys Ser Ala 100 105 Pro Asn Arg Ala Thr Ser Val Trp Ser Leu Lys Pro Arg Leu Leu Tyr 120 Lys His Arg Pro Ser Ser Asp Lys Thr Pro Pro Pro Gly Arg Gln Ala 130 135 Pro Leu Leu Phe Phe Ser Ala Gly 150 <210> 614 <211> 30 <212> PRT <213> Homo sapiens Phe Leu Arg Asn Pro Ser Lys Thr His Thr Pro Arg Asp Ala Ala Phe Arg Asp Pro Gly Gln Thr Pro Asp Pro Gln Ser Leu Gln Ala

<210> 615 <211> 159 <212> PRT <213> Homo sapiens

```
<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (155)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 615
Gln Glu Gly Ser Glu Pro Val Leu Leu Glu Gly Glu Cys Leu Val Val
Cys Glu Pro Gly Arg Ala Ala Gly Gly Pro Gly Gly Ala Ala Leu
Gly Glu Ala Pro Pro Gly Arg Val Ala Phe Xaa Ala Val Arg Ser His
His His Glu Pro Ala Gly Glu Thr Gly Asn Gly Thr Ser Gly Ala Ile
     50
                         55
Tyr Phe Asp Gln Val Leu Val Asn Glu Gly Gly Phe Asp Arg Ala
Ser Gly Ser Phe Val Ala Pro Val Arg Gly Val Tyr Ser Phe Arg Phe
His Val Val Lys Val Tyr Asn Arg Gln Thr Val Gln Val Ser Leu Met
Leu Asn Thr Trp Pro Val Ile Ser Ala Phe Ala Asn Asp Pro Asp Val
                            120
Thr Arg Glu Ala Ala Thr Ser Ser Val Leu Leu Pro Leu Asp Pro Gly
                        135
    130
Asp Arg Val Ser Leu Arg Leu Arg Arg Gly Xaa Ser Thr Gly Trp
                   150
<210> 616
<211> 35
<212> PRT
<213> Homo sapiens
<400> 616
Gly Glu Thr Gly Asn Gly Thr Ser Gly Ala Ile Tyr Phe Asp Gln Val
Leu Val Asn Glu Gly Gly Gly Phe Asp Arg Ala Ser Gly Ser Phe Val
                                 25
Ala Pro Val
```

```
<210> 617
<211> 25
<212> PRT
<213> Homo sapiens
<400> 617
Asn Asp Pro Asp Val Thr Arg Glu Ala Ala Thr Ser Ser Val Leu Leu
                5 10
Pro Leu Asp Pro Gly Asp Arg Val Ser
     2.0
<210> 618
<211> 11
<212> PRT
<213> Homo sapiens
<400> 618
Phe His Val Val Lys Val Tyr Asn Arg Gln Thr
 1 5
<210> 619
<211> 9
<212> PRT
<213> Homo sapiens
<400> 619
Ile Tyr Phe Asp Gln Val Leu Val Asn
1 5
<210> 620
<211> 25
<212> PRT
<213> Homo sapiens
<400> 620
Glu Ser Arg Glu Arg Ser Gly Asn Arg Arg Gly Ala Glu Asp Arg Gly
             5 10 15
Thr Cys Gly Leu Gln Ser Pro Ser Ala
            20
<210> 621
<211> 70
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (30)
<223> Kaa equals any of the naturally occurring L-amino acids
<220>
```

```
- SITE
  > (31)
  > Xaa equals any of the naturally occurring L-amino acids
  > SITE
  > (34)
  > Xaa equals any of the naturally occurring L-amino acids
  > SITE
  > (37)
  > Xaa equals any of the naturally occurring L-amino acids
 1> 621
  Met Pro Gln Phe Tyr Phe Phe Leu Lys Leu Gly Cys Leu Ala Gln
                5
                                   -10
  Pro Met Gln Arg Gly Gly Ile Gly Ala Arg Gly Ser Xaa Xaa Pro
  Xaa Ala Val Xaa Gly Ala Arg Glu Gly Arg Arg Lys Leu Ser Gly
  Gly Phe Leu Cys Leu Lys Asp Leu Gly Pro Ser Glu Arg Glu Asp
                       55
  50
  Glu Ala Arg Glu Thr
 .0> 622
 .1> 27
 .2> PRT
3> Homo sapiens
)0> 622
: Pro Gln Phe Tyr Phe Phe Leu Lys Leu Gly Cys Leu Ala Gln Val
o Met Gln Arg Gly Gly Ile Gly Ala Arg Gly
                                25
10> 623
11> 185
12> PRT
13> Homo sapiens
:00> 623
n Ala Thr Cys Ser Ala Ser Gly Ser Pro Gly Gln Phe Gly Gly Cys
                                    10
ir Pro Ser Pro His Gly Thr Gly Ser Cys Arg His Pro Gly Gln Gly
eu Arg Arg Ser Gln Arg Pro Gly Gln Ser His Arg Pro Arg Ser Pro
                            40
       3.5
```

Gly Pro Gly Arg Ser Arg Trp Pro His Trp Cys His Cys Arg Phe Pro Leu Leu Ala His Gly Gly Gly Phe Gly Pro Gln Gln Met Pro Leu Ala Gln Gly Val Pro Leu Pro Gly Leu Leu Pro Arg Ala Pro Leu Gln Gln Leu Gly Gln Ala His Arg Pro Pro Gly Thr Pro Pro Pro Ala Gly Arg 100 105 Ala Leu Thr Pro Pro Gly Pro Thr Arg Pro Pro Gly Pro Glu Ala Pro 115 120 125 Glu Pro Arg Ala Ala Arg Asp Cys Val Gly Asp Leu Val Ala Ser Val 130 135 Ala Trp Leu Pro Thr Trp Leu Arg Gly Ser Ala Thr His Lys Cys Pro 155 150 Gly Leu Leu Pro Leu Phe Cys Phe Arg Ser Ser Pro Trp Ile Leu Thr 170 165 Ala Gly Thr Leu Ile Val Cys Pro Leu 180 , 185 <210> 624 <211> 25 <212> PRT <213> Homo sapiens <400> 624 Gly Cys Thr Pro Ser Pro His Gly Thr Gly Ser Cys Arg His Pro Gly

<210> 625 <211> 26

<212> PRT

<213> Homo sapiens

<400> 625

Ser Arg Trp Pro His Trp Cys His Cys Arg Phe Pro Leu Leu Ala His 1 5 10 15

^1 O

Gly Gly Gly Phe Gly Pro Gln Gln Met Pro 20 25

Gln Gly Leu Arg Arg Ser Gln Arg Pro

20

<210> 626

<211> 28

<212> PRT

<213> Homo sapiens

<400> 626

Asp Cys Val Gly Asp Leu Val Ala Ser Val Ala Trp Leu Pro Thr Trp

1 5 10 15

Leu Arg Gly Ser Ala Thr His Lys Cys Pro Gly Leu 20 25

<210> 627

<211> 115

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 627

Asp Asp Arg Pro Arg Val Gln His Gln Ala His Leu Asp Ser Leu Ala 1 5 10 15

Val Val His Leu His His Met Glu Pro Glu Ala Val Asp Thr Pro Asp
20 25 30

Arg Gly Tyr Glu Gly Ala Arg Gly Pro Val Lys Ala Thr Ala Leu Val 35 40 45

His Gln Asp Leu Val Glu Val Asp Gly Pro Thr Gly Ala Ile Ala Gly 50 55 60

Phe Pro Cys Trp Leu Met Val Val Ala Ser Asp Arg Xaa Lys Cys His 65 70 75 80

Ser Pro Arg Gly Cys Leu Ser Gln Gly Cys Ser Pro Gly Pro Pro Cys
85 90 95

Ser Ser Ser Ala Arg Leu Thr Asp His Gln Ala Leu Pro Leu Gln Gln
100 105 110

Asp Gly Leu 115

<210> 628

<211> 31

<212> PRT

<213> Homo sapiens

<400> 628

Tyr Glu Gly Ala Arg Gly Pro Val Lys Ala Thr Ala Leu Val His Gln
1 5 10 15

Asp Leu Val Glu Val Asp Gly Pro Thr Gly Ala Ile Ala Gly Phe 20 25 30

<211> 27

```
<210> 629
<211> 159
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (22)
<223> Xaa equals any of the naturally occurring L-amino acids
Met Ala Pro Leu Val Pro Leu Pro Val Ser Pro Ala Gly Ser Trp Trp
                5
                               . 10
Trp Leu Arg Thr Ala Xaa Asn Ala Thr Arg Pro Gly Gly Ala Ser Pro
Arg Ala Ala Pro Pro Gly Pro Pro Ala Ala Arg Pro Gly Ser Gln
Thr Thr Arg His Ser Pro Ser Ser Arg Thr Gly Ser Asp Pro Ser Trp
Ala His Pro Ala Pro Arg Ala Arg Ser Thr Arg Thr Lys Gly Ser Pro
           70 75
Gly Leu Cys Arg Gly Pro Gly Ser Gln Cys Gly Leu Ala Pro Asn Met
Ala Glu Gly Leu Cys Asn Pro Gln Val Pro Arg Ser Ser Ala Pro Leu
Leu Phe Pro Leu Leu Ser Leu Asp Ser His Arg Arg His Pro Asp Ser
Leu Pro Ser Leu Gly Ser Leu Asn Pro Leu Ser Ile Pro Val Ser Gln
                       135
    130
Leu Cys Pro Ala Ser His Ser Tyr Ser Cys Cys His Cys Ser Ser
                   150
<210> 630
<211> 29
<212> PRT
<213> Homo sapiens
<400> 630
Ser Ser Arg Thr Gly Ser Asp Pro Ser Trp Ala His Pro Ala Pro Arg
Ala Arg Ser Thr Arg Thr Lys Gly Ser Pro Gly Leu Cys
<210> 631
```

```
<212> PRT
<213> Homo sapiens
<400> 631
Arg Arg His Pro Asp Ser Leu Pro Ser Leu Gly Ser Leu Asn Pro Leu
                                     10
Ser Ile Pro Val Ser Gln Leu Cys Pro Ala Ser
             20
<210> 632
<211> 31
<212> PRT
<213> Homo sapiens
<400> 632
Ser Thr His Ala Ser Gly Pro Pro Ala Pro Glu Arg Leu Cys Leu Pro
Glu Arg Gly Thr Ala Pro Trp Gly Arg Arg Ala Asn Asp Ala Ala
                                 25
             20
<210> 633
<211> 181
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (56)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<22.2> (57)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (84)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (165)
<223> Xaa equals any of the naturally occurring L-amino acids
```

<400> 633 Val Arg Arg Trp Trp Leu Arg Thr Met Gly Ala Ala Ala His Cys Thr 10 Pro Glu Gln Arg Arg Pro Arg Pro Ala Thr Ile Leu Gly Met Asp 20 25 Thr Gln Asn Ile Leu His Thr Arg Leu Ser Leu Cys Ser Leu Ser Trp Val Ser Leu Ala Ser Ser Phe Xaa Xaa Leu Ala Xaa Arg Arg Lys Ala . 55 Ile Val Val Gln Gln Lys Gln Ser Lys Ile Ser Lys Lys Lys Val Glu Lys Xaa Xaa Leu Asn Asp Ser Val Asn Glu Asn Ser Asp Thr Val Gly Gln Ile Val His Tyr Ile Met Lys Asn Glu Ala Asn Ala Asp Val 105 Leu Lys Ala Met Val Ala Asp Asn Ser Leu Tyr Asp Pro Glu Ser Pro 120 Val Thr Pro Ser Thr Pro Gly Ser Pro Pro Val Ser Pro Gly Leu Cys 130 135 His Gln Gly Gly Arg Gln Gly Ser Thr Ser Val Ala Ile Ile Cys Ile 155 150

Ser Gly Gly Thr Leu 180

<210> 634 - <211> 29

<212> PRT

<213> Homo sapiens

<400> 634

Ile Met Lys Asn Glu Ala Asn Ala Asp Val Leu Lys Ala Met Val Ala 1 5 10 15

Arg Trp Ala Val Xaa Ser Arg Gly Met Cys Val-Ile Gly Val Gly Thr

170

175

Asp Asn Ser Leu Tyr Asp Pro Glu Ser Pro Val Thr Pro
20 _ 25

<210> 635

<211> 143

<212> PRT

<213> Homo sapiens

<220>

```
<221> SITE <222> (77)
```

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 635

His Cys His Leu Trp Ala Ser Gly Ser Cys Leu Ala Cys Phe Phe Pro 1 5 10 15

Gly Gly Leu Thr Arg Asp Ala Ala Gln Gln His Val Thr Lys Ser Tyr
20 25 30

Ser Pro Pro Tyr Leu Ser Gln Thr Ser His Ser Cys Leu Val Phe Gln 35 40 45

Pro Val Leu Trp Pro Glu Tyr Thr Phe Trp Asn Leu Phe Glu Ala Ile 50 55 60

Leu Gln Phe Gln Met Asn His Ser Val Leu Gln Gln Xaa Gly Pro Arg
65 70 75. 80

His Val Cys Arg Gly Ala Glu Glu Ala Ala Gly Glu Gly Pro Gly
85 90 95

Tyr Ser Asp Arg Ala Ala Ala Ala Arg Gly Ala Pro Ser Gln Trp Gly
100 105 110

Arg Pro Ala Pro Lys Asp Thr Leu Ala Gln Thr Leu Gly Gln Thr Gly
115 120 125

Arg Ala Ser Pro Arg Leu Pro Ala Gly Leu Gly Thr Gln Ala Ser 130 135 140

<210> 636

<211> 28

<212> PRT

<213> Homo sapiens

<400> 636

Pro Ala Pro Lys Asp Thr Leu Ala Gln Thr Leu Gly Gln Thr Gly Arg
1 5 10 15

Ala Ser Pro Arg Leu Pro Ala Gly Leu Gly Thr Gln
20 25

<210> 637

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 637

Thr Ile Ala Cys Phe Ser Kaa Lys Ala Arg Asp Met Tyr Ala Glu Glu

Ų

1	_	10	7 '
±)	10	<u> </u>

Arg Lys Arg Gln Gln Leu Glu Arg Asp-Gln Ala Thr Val Thr Glu Gln 20 25 30

Leu Leu Arg Glu Gly Leu Gln Ala Ser Gly Asp Ala Gln Leu Arg Arg
35 40 45

Thr Arg Leu His Lys Leu Ser Ala Arg Arg Glu Glu Arg Val Gln Gly
50 - 60

Phe Leu Gln Ala Leu Glu Leu Lys Arg Ala Asp Trp Leu Ala Arg Leu 65 70 75 80

Gly Thr Ala Ser Ala

<210> 638

<211> 28

<212> PRT

<213> Homo sapiens

<400> 638

Leu Arg Arg Thr Arg Leu His Lys Leu Ser Ala Arg Arg Glu Glu Arg 1 5 10 15

Val Gln Gly Phe Leu Gln Ala Leu Glu Leu Lys Arg
20 25

<210> 639

<211> 112

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 639

Lys Met Asn Ser Ile Pro Trp Gln Ile Pro Lys Ile Thr Pro Xaa Leu 1 5 10 15

Asp Ala Asn Leu Val Ile Val Glu Cys Lys Pro Leu Trp Phe Cys Ile 20 25 30

Gly Thr Ile Lys Gln Leu Lys Leu Trp Asn Gln Val Phe Met Gly Phe 35 40 45

Lys Ser Met Phe Phe Arg Ile Gly Lys Leu Asn Tyr Leu Phe Thr Ile 50 55 60

Pro Tyr Cys Tyr Leu Phe Ile Asp Asn Ile Leu Gly Ile Phe Tyr Ser 65 70 75 80

Ile Leu Gly Ala Gln Gly Ile Lys Tyr Asn Phe Tyr Ile Gln Arg Ile

85 90 95

Phe Thr Cys Leu Leu Asn Leu Asn Leu Lys Ile His Ser Asn Leu Ala 100 105 110

<210> 640

<211> 27

<212> PRT

<213> Homo sapiens

<400> 640

Leu Trp Phe Cys Ile Gly Thr Ile Lys Gln Leu Lys Leu Trp Asn Gln 1 5 10 15

Val Phe Met Gly Phe Lys Ser Met Phe Phe Arg

<210> 641

<211> 26

<212> PRT

<213> Homo sapiens

<400> 641

Tyr Ser Ile Leu Gly Ala Gln Gly Ile Lys Tyr Asn Phe Tyr Ile Gln $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Arg Ile Phe Thr Cys Leu Leu Asn Leu Asn 20 25

<210> 642

<211> 9

<212> PRT

<213> Homo sapiens

<400> 642

Thr Phe Lys Leu Val Arg Phe Leu Glu

<210> 643

<211> 32

<212> PRT

<213> Homo sapiens

<400> 643

Pro Arg Ser Arg Pro Ala Leu Arg Pro Gly Arg Gln Arg Pro Pro Ser 1 5 10.

His Ser Ala Thr Ser Gly Val Leu Arg Pro Arg Lys Lys Pro Asp Pro 20 25 30

```
<210> 644
<211> 120
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 644
Arg Lys Ser Phe Ala Lys Pro Val Leu Trp Thr Asn Ala Ile Gln Ala
                                     10
Gly Arg Gly Arg Val Leu Cys Tyr Thr Arg Pro Pro Pro Ala Ser Ser
Ser Phe Ser Ala Leu Val Pro Asp Gly Asn Arg Met Glu Gly Leu Arg
         35
Thr Tyr Phe Leu Asn Ala Phe Asp Pro Gly Thr Asp Tyr Leu Tyr Leu
                     55
Phe Pro Phe Ser Phe Thr Val Thr Phe Gln His Cys Leu Thr Val Arg
                                        75
                     70
Trp Ala Phe Glu Ser Leu Gln Val Pro Gln Asn Arg Pro Glu Arg Trp
Ala Ser His Pro Leu Pro Thr His Xaa Pro Ala Tyr Leu Pro Asp Asn
                                105
            100
Gln Val Xaa Met Ser Ala Ser Gly
                            120
        115
<210> 645
<211> 25
<212> PRT
<213> Homo sapiens
<400> 645
Gly Asn Arg Met Glu Gly Leu Arg Thr Tyr Phe Leu Asn Ala Phe Asp
                                      10
Pro Gly Thr Asp Tyr Leu Tyr Leu Phe
              20
```

```
<211> 30
<212> PRT
<213> Homo sapiens
<400> 646
Phe Gln His Cys Leu Thr Val Arg Trp Ala Phe Glu Ser Leu Gln Val
                                 10
Pro Gln Asn Arg Pro Glu Arg Trp Ala Ser His Pro Leu Pro
 20 25
<210> 647
<211> 31
<212> PRT
<213> Homo sapiens
<221> SITE
<222> (8) .
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (13)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 647
Met Thr Leu Ile Thr Pro Ser Xaa Lys Leu Thr Phe Xaa Lys Gly Asn
                                   10
Lys Ser Trp Ser Ser Arg Ala Cys Ser Ser Thr Leu Val Asp Pro
                                                  3.0
<210> 648
<211> 14
<212> PRT
<213> Homo sapiens
<400> 648
Phe Leu Phe Leu His Ala Val Asp Pro Trp Pro Ser Asn Gly
<210> 649
<211> 61
<212> PRT
<213> Homo sapiens
<400> 649
Trp Ser Cys Gln Ser Gly Val Phe Leu Val Phe Thr Gly Cys Ser Val
                          10
Leu Cys Gln Met Leu Ser Gly Ala Val Val Val Trp Arg Arg Ser Ala
                              25
Pro Glu Asp Ser Ala Val Trp Gln Ala Ser Ile Asn Lys Pro Arg Gly
```

35 40 45

Lys Gly Arg His Gly Ile Lys Gly Glu Asn Thr Ser Val 50 55 60

<210> 650

<211> 35

<212> PRT

<213> Homo sapiens

<400> 650

Leu Val Phe Thr Gly Cys Ser Val Leu Cys Gln Met Leu Ser Gly Ala 1 5 10 15

Val Val Trp Arg Arg Ser Ala Pro Glu Asp Ser Ala Val Trp Gln
, 20 25 30

Ala Ser Ile 35

<210> 651

<211> 51

<212> PRT

<213> Homo sapiens

<400> 651

Gly His Pro Ser Pro Ala Leu Ser Ile Ala Pro Ser Asp Gly Ser Gln
1 5 10 15

Leu Pro Cys Asp Glu Val Pro Tyr Gly Glu Ala His Val Thr Arg Tyr
20 25 30

Cys Lys Lys Pro Leu Thr Asn Ser His Leu Glu Thr Glu Ala Gln Ser 40 45

Ser Ser Leu 50

<210> 652

<211> 151

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (131)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (145)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 652

Asn Asn Lys His Tyr Leu Ser Phe Cys Gly Ser Gly Phe Cys Pro Val

<u>1</u>				5					10					15	
Tyr	Leu	Gly	Phe 20	Thr	Gly	Leu	Ala	Ser 25	His	Gln	Ala	Val	Lys 30	Val	Leu
Val	Val	Ala 35	Val	Ile	Ile	Pro	Arg 40	Gln	Asp	Arg	Glu	Arg 45	Ile	Cys	Leu
Gln	. Ala 50	Gln	Val	Gly	Arg	Ile 55	His	Leu	Arg	Gly	Cys 60	Trp	Thr	Gly	Pro
Pro 65	Phe	Leu	Asp	Gly	Tyr 70		Ser	Glu	Ala	Phe 75	Tyr	Asn	Thr	Leu	Ser 80
Arg	Gly	Pro	Leu	His 85	Arg	Ala	Pro	His	His 90	Met	Ala	Thr	Gly	Phe 95	His
`Glr	. Arg		Gln 100	Trp	Lys	Glu	Gln	Glu 105		Gly	Asp	Gln	Gly 110	Arg	His

Arg Ser Leu Leu Val Ala Ser Pro Gln Lys Arg Cys Tyr Phe Cys Cys
115 120 125

Ile Leu Xaa Val Arg Ser Glu Ser Leu Gly.Pro Gly Val Glu Phe Tyr 130 135 140

Xaa Gly Val Asn Gly Arg Arg
145 150

<210> 653 <211> 32 <212> PRT <213> Homo sapiens

<400> 653 Glu Arg Ile Cys Leu Gln Ala Gln Val Gly Arg Ile His Leu Arg Gly 1 5 10 15

Cys Trp Thr Gly Pro Pro Phe Leu Asp Gly Tyr Trp Ser Glu Ala Phe 20 25 30

<210> 654 <211> 26 <212> PRT <213> Homo sapiens

His Val Thr Arg Tyr Cys Lys Lys Pro Leu 20 25

	<210> 655 <211> 27 <212> PRT <213> Homo	sapiens					
	<400> 655 His Gln Ard	g Glu Gln T: 5	rp Lys Glu (Gln Glu Lys 10	Gly Asp Gli	n Gly Arg 15	
	His Arg Se	r Leu Leu Va 20	al Ala Ser	Pro Gln Lys 25			
	<210> 656 <211> 263 <212> DNA <213> Homo	sapiens					
	<400> 656		,				•
		CAACCCTCTT	GCCCTTCGCC	TGTGTGCCTG	GAGCCAGTCC	CACCACGCTC	60
	GCGTTTCCTC	CTGTAGTGCT	CACAGGTCCC	AGCACCGATG	GCATTCCCTT	TGCCCTGAGT	120
	CTGCAGCGGG	TCCCTTTTGT	GCTTCCTTCC	CCTCAGGTAG	CCTCTCTCCC	CCTGGGCCAC	180
	TCCCGGGGGT	GAGGGGGTTA	CCCCTTCCCA	GTGTTTTTTA	TTCCTGTGGG	GCTCACCCCA	240
	AAGTATTAAA	ÄGTAGCTTTG	TAA				263
•							
	<210> 657 <211> 263 <212> DNA <213> Homo	sapiens					
	<400> 657					•	
	GCTTCGTGTC	CAACCCTCTT	GCCCTTCGCC	TGTGTGCCTG	GAGCCAGTCC	CACCACGCTC	60
	GCGTTTCCTC	CTGTAGTGCT	CAÇAGGTCCC	AGCACCGATG	GCATTCCCTT	TGCCCTGAGT	. 120
	CTGCAGCGGG	TCCCTTTTGT	GCTTCCTTCC	CCTCAGGTAG	CCTCTCTCCC	CCTGGGCCAC	180
	TCCCGGGGGT	GAGGGGGTTA	CCCCTTCCCA	GTGTTTTTTA	TTCCTGTGGG	GCTCACCCCA	. 240
	AAGTATTAAA	AGTAGCTTTG	TAA				. 263
	<210> 658 <211> 263 <212> DNA <213> Homo						
	<400> 658 GCTTCGTGTC	CAACCCTCTT	GCCCTTCGCC	TGTGTGCCTG	GAGCCAGTCC	CACCACGCTC	60

GCGTTTCCTC CTGTAGTGCT CACAGGTCCC AGCACCGATG GCATTCCCTT TGCCCTGAGT												
CTGCAGCGGG TCCCTTTTGT GCTTCCTTCC CCTCAGGTAG CCTCTCTCCC CCTGGGCCAC												
TCCCGGGGGT GAGGGGGTTA CCCCTTCCCA GTGTTTTTTA TTCCTGTGGG GCTCACCCCA												
AAGTATTAAA AGTAGCTTTG TAA												
<210> 659												
<211> 56 <212> PRT												
<213> Homo sapiens												
<220> <221> SITE												
<pre><222> (10) <223> Xaa equals any of the naturally occurring L-amino acids</pre>												
<pre><400> 659 Phe Arg Ile Asn Arg Leu Thr Ile Gly Xaa Ala Val Ala Met Thr Arg</pre>												
1 5 10 15												
Gly Asn Gln Arg Glu Leu Ala Arg Gln Lys Asn Met Lys Lys Gln Ser 20 25 30 .												
Asp Ser Val Lys Gly Lys Arg Arg Asp Asp Gly Leu Ser Ala Ala Ala 35 40 45												
Arg Lys Gln Arg Asp Ser Glu Ile 50 55												
<210> 660												
<211> 29 <212> PRT												
<213> Homo sapiens												
<400> 660 Ala Val Ala Met Thr Arg Gly Asn Gln Arg Glu Leu Ala Arg Gln Lys												
1 5 10 15												
Asn Met Lys Lys Gln Ser Asp Ser Val Lys Gly Lys Arg 20 25												
<210> 661 <211> 110												
<212> PRT <213> Homo sapiens												
<400> 661												
Lys Ser Arg Ala Thr Arg Leu Arg Glu Ser Ala Glu Met Thr Gly Phe 1 5 10 15												
Leu Leu Pro Pro Ala Ser Arg Gly Thr Arg Arg Ser Cys Ser Arg Ser 20 25 30												

Arg Lys Arg Gln Thr Arg Arg Arg Arg Asn Pro Ser Ser Phe Val Ala 35 40 Ser Cys Pro Thr Leu Leu Pro Phe Ala Cys Val Pro Gly Ala Ser Pro Thr Thr Leu Ala Phe Pro Pro Val Val Leu Thr Gly Pro Ser Thr Asp Gly Ile Pro Phe Ala Leu Ser Leu Gln Arg Val Pro Phe Val Leu Pro 85 90 Ser Pro Gln Val Ala Ser Leu Pro Leu Gly His Ser Arg Gly <210> 662 <211> 26 <212> PRT <213> Homo sapiens <400> 662 Leu Arg Glu Ser Ala Glu Met Thr Gly Phe Leu Leu Pro Pro Ala Ser 10 Arg Gly Thr Arg Arg Ser Cys Ser Arg Ser 20 <210> 663 <211> 30 <212> PRT <213> Homo sapiens <400> 663 Val Val Leu Thr Gly Pro Ser Thr Asp Gly Ile Pro Phe Ala Leu Ser Leu Gln Arg Val Pro Phe Val Leu Pro Ser Pro Gln Val Ala 25 <210> 664 <211> 59 <212> PRT <213> Homo sapiens <400> 664 Leu Leu Ser Thr Ser His Leu Leu Thr Gln Ser Tyr Ser Phe Asn Lys 10 5

Arg Ser His Ser Phe Ala Trp Lys Asn Ala His Cys Ile Leu Gln Ser

Glu Asn Asn Glu Leu Gln Asn Ser Val Tyr Ile Tyr Val Cys Ile Tyr

Val His Phe Ile Cys Thr Phe Leu Cys Asp Ile 50 55

<210> 665 <211> 32 <212> PRT <213> Homo sapiens	
<400> 665 Lys Arg Ser His Ser Phe Ala Trp Lys Asn Ala His Cys Ile Leu Gl 1 5 10 15	ln .
Ser Glu Asn Asn Glu Leu Gln Asn Ser Val Tyr Ile Tyr Val Cys Il 20 25 30	.e
<210> 666 <211> 160 <212> DNA <213> Homo sapiens	
<400> 666 TGGCTCACTG TCTTACAATC ACTGCTGTGG AATCATGATA CCACTTTTAG CTCTTTC	GCAT 60
CTTCCTTCAG TGTATTTTTG TTTTTCAAGA GGAAGTAGAT TTTAACTGGA CAACTT	rgag 120
TACTGACATC ATTGATAAAT AAACTGGCTT GTGGTTTCAA	160
<210> 667 <211> 292 <212> PRT <213> Homo sapiens	
<220>	
<221> SITE <222> (105) <223> Xaa equals any of the naturally occurring L-amino acids	
<400> 667 Leu Asp Glu Leu Met Ala His Leu Thr Glu Met Gln Ala Lys Val Al 1 5 10 15	.a
Val Arg Ala Asp Ala Gly Lys Lys His Leu Pro Asp Lys Gln Asp Hi	.s ˇ
Lys Ala Ser Leu Asp Ser Met Leu Gly Gly Leu Glu Gln Glu Leu Gl	.n
Asp Leu Gly Ile Ala Thr Val Pro Lys Gly His Cys Ala Ser Cys Gl	.n
Lys Pro Ile Ala Gly Lys Val Ile His Ala Leu Gly Gln Ser Trp Hi	.s

65					70					75					80
Pro	Glu	His	Phe	Val 85	Cvs	Thr	His	Cys	Lys 90	Glu	Glu	Ile	Gly	Ser 95	Ser
Pro	Phe	Phe	Glu 100	Arg	Ser	Gly	Leu	Xaa 105	Tyr	Cys	Pro	Asn	Asp 110	Tyr	His
Gln	Leu	Phe 115	Ser	Pro	Arg	Cys	Ala 120	Tyr	Cāz	Ala	Ala	Pro 125	Ile	Leu	Asp
Lys	Val 130	Leu	Thr	Ala	Met	Asn 135	Gln	Thr	Trp	His	Pro 140	Glu	His	Phe	Ph∈
Cys 145	Ser	His	Cys	Gly	Glu 150	Val	Phe	Gly	Ala	Glu 155	Gly	Phe	His	Glu	Lys 160
Asp	Lys	Lys	Pro	Tyr 165	Cys	Arg	Lys	Asp	Phe 170	Leu	Ala	Met	Phe	Ser 175	Pro
Lys	Cys	Gly	Gly 180	Cys	Asn	Arg	Pro	Val 185	Leu	Glu	Asn	Tyr	Leu 190	Ser	Ala
Met	Asp	Thr 195	Val	Trp	His	Pro	Glu 200	Cys	Phe	Val	Cys	Gly 205	Asp	Cys	Phe
Thr	Ser 210	Phe	Ser	Thr	Gly	Ser 215	Phe	Phe	Glu	Leu	Asp 220	Gly	Arg	Pro	Phe
Cys 225	Glu	Leu	His	Tyr	His 230	His	Arg	Arg	Gly	Thr 235	Leu	Cys	His	Gly	Cys 240
Gly	Gln	Pro	Ile	Thr 245	Gly	Arg	Cys	Ile	Ser 250	Ala	Met	Gly	Tyr	Lys 255	Phe
His	Pro	Glu	His 260	Phe	Val	Cys	Ala	Phe 265	Cys	Leu	Thr	Gln	Leu 270	Ser	Lys
Gly	Ile	Phe 275	Arg	Glu	Gln	Asn	Asp 230	Lys	Thr	Tyr	Cys	Gln 285	Pro	Cys	Phe
Asn	Lys 290	Leu	Phe												
<211 <212)> 66 -> 43 ?> PF 8> Ho	3	sapie	ens	٠						•		·		
-100	\~ 66	. 0													
)> 66 Ala		Leu	Asp 5	Ser	Met	Leu	Gly	Gly 10	Leu	Glu	Gln	Glu	Leu 15	Gln
Asp	Leu	Gly	Ile 20	Ala	Thr	Val	Pro	Lys 25	Gly	His	Cys	Ala	Ser 30	Cys	Gln
Lys	Pro	Ile	Ala	Gly	Lys	Val	Ile	His	Ala	Leu					

40

```
1 EU/UI
```

```
<210> 669
<211> 50
<212> PRT
<213> Homo sapiens
<400> 669
Cys Pro Asn Asp Tyr His Gln Leu Phe Ser Pro Arg Cys Ala Tyr Cys
                                    10
Ala Ala Pro Ile Leu Asp Lys Val Leu Thr Ala Met Asn Gln Thr Trp
                                 25
His Pro Glu His Phe Phe Cys Ser His Cys Gly Glu Val Phe Gly Ala
                            40
Glu Gly
    50
<210> 670
<211> 67
<212> PRT
<213> Homo sapiens
<400> 670
Asp Lys Lys Pro Tyr Cys Arg Lys Asp Phe Leu Ala Met Phe Ser Pro
Lys Cys Gly Gly Cys Asn Arg Pro Val Leu Glu Asn Tyr Leu Ser Ala
Met Asp Thr Val Trp His Pro Glu Cys Phe Val Cys Gly Asp Cys Phe
Thr Ser Phe Ser Thr Gly Ser Phe Phe Glu Leu Asp Gly Arg Pro Phe
Cys Glu Leu
 65
<210> 671
<211> 46
<212> PRT
<213> Homo sapiens
<400> 671
Cys Gly Gln Pro Ile Thr Gly Arg Cys Ile Ser Ala Met Gly Tyr Lys
                             . 10
```

Phe His Pro Glu His Phe Val Cys Ala Phe Cys Leu Thr Gln Leu Ser Lys Gly Ile Phe Arg Glu Gln Asn Asp Lys Thr Tyr Cys Gln

40

```
<210> 672
<211> 3.34
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (8.)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (145)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 672
His Lys Ser Leu Ala Gly Ala Xaa Val Tyr Thr Thr Asn Ile Gln Glu
Leu Asn Val Tyr Ser Glu Ala Gln Glu Pro Lys Glu Ser Pro Pro
             20
                                 25
Ser Lys Thr Ser Ala Ala Ala Gln Leu Asp Glu Leu Met Ala His Leu
                          . 40
Thr Glu Met Gln Ala Lys Val Ala Val Arg Ala Asp Ala Gly Lys Lys
His Leu Pro Asp Lys Gln Asp His Lys Ala Ser Leu Asp Ser Met Leu
                                         75
                     70
Gly Gly Leu Glu Glu Leu Gln Asp Leu Gly Ile Ala Thr Val Pro
Lys Gly His Cys Ala Ser Cys Gln Lys Pro Ile Ala Gly Lys Val Ile
            100
His Ala Leu Gly Gln Ser Trp His Pro Glu His Phè Val Cys Thr His
                           120
Cys Lys Glu Glu Ile Gly Ser Ser Pro Phe Phe Glu Arg Ser Gly Leu
                        135
                                            140
    130
Xaa Tyr Cys Pro Asn Asp Tyr His Gln Leu Phe Ser Pro Arg Cys Ala
                   150
145
Tyr Cys Ala Ala Pro Ile Leu Asp Lys Val Leu Thr Ala Met Asn Gln
                                    170
                165
Thr Trp His Pro Glu His Phe Phe Cys Ser His Cys Gly Glu Val Phe
            180
Gly Ala Glu Gly Phe His Glu Lys Asp Lys Lys Pro Tyr Cys Arg Lys
                            200
        195
```

Asp Phe Leu Ala Met Phe Ser Pro Lys Cys Gly Gly Cys Asn Arg Pro

210 215 220

Val Leu Glu Asn Tyr Leu Ser Ala Met Asp Thr Val Trp His Pro Glu 225 230 235 240

Cys Phe Val Cys Gly Asp Cys Phe Thr Ser Phe Ser Thr Gly Ser Phe 245 250 255

Phe Glu Leu Asp Gly Arg Pro Phe Cys Glu Leu His Tyr His His Arg 260 265 270

Arg Gly Thr Leu Cys His Gly Cys Gly Gln Pro Ile Thr Gly Arg Cys 275 280 285

Ile Ser Ala Met Gly Tyr Lys Phe His Pro Glu His Phe Val Cys Ala 290 295 300

Phe Cys Leu Thr Gln Leu Ser Lys Gly Ile Phe Arg Glu Gln Asn Asp 305 310 315 320

Lys Thr Tyr Cys Gln Pro Cys Phe Asn Lys Leu Phe Pro Leu 325 330

<210> 673

<211> 22

<212> PRT

<213> Homo sapiens

<400> 673

Asn Val Tyr Ser Glu Ala Gln Glu Pro Lys Glu Ser Pro Pro Pro Ser 1 5 10 15

Lys Thr Ser Ala Ala Ala 20

<210> 674 '

<211> 26 .

<212> PRT

<213> Homo sapiens

<400> 674

Asp Ser Met Leu Gly Gly Leu Glu Gln Glu Leu Gln Asp Leu Gly Ile

Ala Thr Val Pro Lys Gly His Cys Ala Ser

<210> 675

<211> 26

<212> PRT

<213> Homo sapiens

<400> 675

Tyr Leu Ser Ala Met Asp Thr Val Trp His Pro Glu Cys Phe Val Cys

1 5 10 15

Gly Asp Cys Phe Thr Ser Phe Ser Thr Gly 20 25

<210> 676

<211> 26

<212> PRT

<213> Homo sapiens

<400> 676

Arg Cys Ile Ser Ala Met Gly Tyr Lys Phe His Pro Glu His Phe Val 1 5 10 15

Cys Ala Phe Cys Leu Thr Gln Leu Ser Lys
20 25

<210> 677

<211> 127

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 677

Pro Thr Arg Pro Val Leu Phe Phe Ser Thr Cys Gln Ser Cys Ser Ser 1 5 10 15

Arg Pro Val Arg Gln Glu His Leu Gly Cys Arg Thr Met Glu Glu Leu 20 25 30

Asp Ala Leu Leu Glu Glu Leu Glu Arg Ser Thr Leu Gln Asp Ser Asp 35 40 45

Glu Tyr Ser Asn Pro Ala Pro Leu Pro Leu Asp Gln His Ser Arg Lys
50 55 60

Glu Thr Asn Leu Asp Glu Thr Ser Glu Ile Leu Ser Ile Gln Asp Asn 65 70 75 80

Thr Ser Pro Leu Pro Ala Xaa Ser Cys Ile Leu Pro Ile Ser Arg Ser 85 90 95

Ser Met Ser Thr Val Lys Pro Lys Ser Gln Arg Asn His His Leu 100 105 110

Leu Lys Arg Gln Gln Leu Leu Ser Trp Met Ser Ser Trp Leu Thr
115 120 125

<210> 678

<211> 28

<212> PRT

<213> Homo sapiens

<400> 683

```
Pro Val Arg Gln Glu His Leu Gly Cys Arg Thr Met Glu Glu Leu Asp
<400> 678
          5
Ala Leu Leu Glu Glu Leu Glu Arg Ser Thr Leu Gln
<210> 679
<211> 21
<212> PRT
<213> Homo sapiens
<400> 679
Ser Cys Ile Leu Pro Ile Ser Arg Ser Ser Met Ser Thr Val Lys Pro
       5 10
 1
Lys Ser Gln Arg Asn
            20
<210> 680
<211> 11
<212> PRT
 <213> Homo sapiens
<400> 680
 Trp His Pro Glu His Phe Val Cys Thr His Cys
 1 5
 <210> 681
 <211> 6
 <212> PRT
 <213> Homo sapiens
 <400> 681
 Leu Phe Ser Pro Arg Cys
 <210> 682
 <211> б
 <212> PRT
 <213> Homo sapiens
 <400> 682
  Pro Ile Leu Asp Lys Val
  1
  <210> 683
  <211> 8
  <212> PRT
  <213> Homo sapiens
```

```
Thr Trp His Pro Glu His Phe Phe
                 . 5
 <210> 684
 <211> 7
 <212> PRT
 <213> Homo sapiens
 <400> 684
 Glu Gly Phe His Glu Lys Asp
  1 . 5
- <210> 685
 <211> 13
 <212> PRT
 <213> Homo sapiens
 <400> 685
 Lys Phe His Pro Glu His Phe Val Cys Ala Phe Cys Leu
 <210> 686
 <211> 7
 <212> PRT
 <213> Homo sapiens
 <400> 686
 Pro Ile Thr Gly Arg Cys Ile
 <210> 687
 <211> 7
 <212> PRT
 <213> Homo sapiens
 <400> 687
His Pro Glu His Phe Val Cys
 1 5 .
 <210> 688
<211> 31
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (12)
 <223> Xaa equals any of the naturally occurring L-amino acids
 Arg Ile Tyr Cys Ser Glu Asp Thr Phe Ser Pro Xaa Ala Glu Ser Gly
                   5
                                    10
   1
```



Val Ser Trp Gln Ser Ser Val Ser Gln Leu Tyr Gln Asp Tyr Glu 20 25 30

<210> 689

<211> 452

<212> PRT

<213> Homo sapiens

<220>

<221> SITE ·

<222> (61)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 689

Met Gly Ser Ser Gln Ser Val Glu Ile Pro Gly Gly Gly Thr Glu Gly

1 5 10 15

Tyr His Val Leu Arg Val Gln Glu Asn Ser Pro Gly His Arg Ala Gly
20 25 30

Leu Glu Pro Phe Phe Asp Phe Ile Val Ser Ile Asn Gly Ser Arg Leu 35 40 45

Asn Lys Asp Asn Asp Thr Leu Lys Asp Leu Leu Lys Xaa Asn Val Glu 50 55 60

Lys Pro Val Lys Met Leu Ile Tyr Ser Ser Lys Thr Leu Glu Leu Arg
65 70 75 80

Glu Thr Ser Val Thr Pro Ser Asn Leu Trp Gly Gly Gln Gly Leu Leu 85 90 95

Gly Val Ser Ile Arg Phe Cys Ser Phe Asp Gly Ala Asn Glu Asn Val 100 105 110

Trp His Val Leu Glu Val Glu Ser Asn Ser Pro Ala Ala Leu Ala Gly
115 120 125

Leu Arg Pro His Ser Asp Tyr Ile Ile Gly Ala Asp Thr Val Met Asn 130 135 140

Glu Ser Glu Asp Leu Phe Ser Leu Ile Glu Thr His Glu Ala Lys Pro 145 150 155 160

Leu Lys Leu Tyr Val Tyr Asn Thr Asp Thr Asp Asn Cys Arg Glu Val
165 170 175

Ile Ile Thr Pro Asn Ser Ala Trp Gly Gly Glu Gly Ser Leu Gly Cys
180 185 190

Gly Ile Gly Tyr Gly Tyr Leu His Arg Ile Pro Thr Arg Pro Phe Glu 195 200 205

Glu Gly Lys Lys Ile Ser Leu Pro Gly Gln Met Ala Gly Thr Pro Ile 210 215 220

Thr Pro Leu Lys Asp Gly Phe Thr Glu Val Gln Leu Ser Ser Val Asn

225					230					235					240
Pro	Pro	Ser	Leu	Ser 245	Pro	Pro	Gly	Thr	Thr 250	Gly	Ile	Glu	Gln	Ser 255	Let
Thr	Gly	Leu	Ser 260	Ile	Ser	Ser	Thr	Pro 265	Pro	Ala	Val	Ser	Ser 270	Val	Leu
Ser	Thr	Gly 275	Val	Pro	Thr	Val	Pro 280	Leu	Leu	Pro	Pro	Gln 285	Val	Asn	Glr
Ser	Leu 290	Thr	Ser	Val	Pro	Pro 295	Met	Asn	Pro	Ala	Thr 300	Thr	Leu	Pro	Gly
Leu 305	Met	Pro	Leu		Ala 310	Gly	Leu	Pro	Asn	Leu 315	Pro	Asn	Leu	Asn	Leu 320
Asn	Leu	Pro	Ala	Pro 325	His	Ile	Met	Pro	Gly 330	Val	Gly	Leu		Glu 335	Leu
Val	Asn	Pro	Gly 340	Leu	Pro	Prò	Leu	Pro 345	Ser	Met	Pro	Pro	Arg 350	Asn	Lev
Pro	Gly	Ile 355	Ala	Pro	Leu	Pro	Leu 360	Pro	Ser	Glu	Phe	Leu 365	Pro	Ser	Ph∈
Pro	Leu 370	Val	Pro	Glu	Ser	Ser 375	Ser	Ala	Ala	Ser	Ser 380	Gly	Glu	Leu	Leu
Ser 385	Ser	Leu	Pro	Pro	Thr 390	Ser	Asn	Ala	Pro	Ser 395	Asp	Pro	Ala	Thr	Thr
Thr	Ala	Lys	Ala	Asp 405	Ala	Ala	Ser	Ser	Leu 410	Thr	Val	Asp	Val	Thr 415	Pro
Pro	Thr	Ala	Lys 420	Ala	Pro	Thr	Thr	Val 425	Glu	Asp	Arg	Val	Gly 430	Asp	Ser
Thr	Pro	Val 435	Ser.	Glu	Lys	Pro	Val 440	Ser	Ala	Ala	Val	Asp 445	Ala	Asn	Ala
Ser	Glu 450	Ser	Pro												
<211 <212)> 69 .> 10 .> PF .> Ho	9	sapie	ens	·						•				
	.> SI :> (5	66)	quals	s any	of	the	natu	ırall	у ос	curr	ring	L-an	nino	ació	ls
<400 Ser			Ile	Pro 5	Gly	Gly	Gly	Thr	Glu 10	Gly	Tyr	His	Val	Leu 15	Arg

Val Glu Asn Ser Pro Gly His Arg Ala Gly Leu Glu Pro Phe Phe 20 25 30

Asp Phe Ile Val Ser Ile Asn Gly Ser Arg Leu Asn Lys Asp Asn Asp 35

Thr Leu Lys Asp Leu Leu Lys Xaa Asn Val Glu Lys Pro Val Lys Met
50 55 60

Leu Ile Tyr Ser Ser Lys Thr Leu Glu Leu Arg Glu Thr Ser Val Thr 65 70 75 80

Pro Ser Asn Leu Trp Gly Gly Gln Gly Leu Leu Gly Val Ser Ile Arg 85 90 95

Phe Cys Ser Phe Asp Gly Ala Asn Glu Asn Val Trp His
100 105

<210> 691

<211> 145

<212> PRT

<213> Homo sapiens

Glu Ser Asn Ser Pro Ala Ala Leu Ala Gly Leu Arg Pro His Ser Asp 1 5

Tyr Ile Ile Gly Ala Asp Thr Val Met Asn Glu Ser Glu Asp Leu Phe 20 25 30

Ser Leu Ile Glu Thr His Glu Ala Lys Pro Leu Lys Leu Tyr Val Tyr 35 40 45

Asn Thr Asp Thr Asp Asn Cys Arg Glu Val Ile Ile Thr Pro Asn Ser 50 55

Ala Trp Gly Glu Gly Ser Leu Gly Cys Gly Ile Gly Tyr Gly Tyr 65 70 75 80

Leu His Arg Ile Pro Thr Arg Pro Phe Glu Glu Gly Lys Lys Ile Ser 85 90 95.

Leu Pro Gly Gln Met Ala Gly Thr Pro Ile Thr Pro Leu Lys Asp Gly 100

Phe Thr Glu Val Gln Leu Ser Ser Val Asn Pro Pro Ser Leu Ser Pro 115

Pro Gly Thr Thr Gly Ile Glu Gln Ser Leu Thr Gly Leu Ser Ile Ser 130

Ser 145

<210> 692

<211> 145

<212> PRT

<213> Homo sapiens

<400> 692

Glu Ser Asn Ser Pro Ala Ala Leu Ala Gly Leu Arg Pro His Ser Asp 1 5 10 15

Tyr Ile Ile Gly Ala Asp Thr Val Met Asn Glu Ser Glu Asp Leu Phe
20 25 30

Ser Leu Ile Glu Thr His Glu Ala Lys Pro Leu Lys Leu Tyr Val Tyr 35 40 45

Asn Thr Asp Thr Asp Asn Cys Arg Glu Val Ile Ile Thr Pro Asn Ser
50 55 60

Ala Trp Gly Glu Gly Ser Leu Gly Cys Gly Ile Gly Tyr Gly Tyr 65 70 75 80

Leu His Arg Ile Pro Thr Arg Pro Phe Glu Glu Gly Lys Lys Ile Ser 85 90 95

Leu Pro Gly Gln Met Ala Gly Thr Pro Ile Thr Pro Leu Lys Asp Gly
100 105 110

Phe Thr Glu Val Gln Leu Ser Ser Val Asn Pro Pro Ser Leu Ser Pro 115 120 125

Pro Gly Thr Thr Gly Ile Glu Gln Ser Leu Thr Gly Leu Ser Ile Ser 130 135 140

Ser 145

<210> 693

<211> 151

<212> PRT

<213> Homo sapiens

<400> 693

Arg Ile Pro Thr Arg Pro Phe Glu Glu Gly Lys Lys Ile Ser Leu Pro 1 5 10 . 15

Gly Gln Met Ala Gly Thr Pro Ile Thr Pro Leu Lys Asp Gly Phe Thr 20. 25 30

Glu Val Gln Leu Ser Ser Val Asn Pro Pro Ser Leu Ser Pro Pro Gly 35 40 .45

Thr Thr Gly Ile Glu Gln Ser Leu Thr Gly Leu Ser Ile Ser Ser Thr 50 55 60

Pro Pro Ala Val Ser Ser Val Leu Ser Thr Gly Val Pro Thr Val Pro 65 70 75 80

Leu Leu Pro Pro Gln Val Asn Gln Ser Leu Thr Ser Val Pro Pro Met

				85					90					95.	
Ası	n Pro	Ala	Thr 100	Thr	Leu	Pro	Gly	Leu 105	Met	Pro	Leu	Pro	Ala 110	Gly	Leu
Pro	o Asn	Leu 115	Pro	Asn	Leu	Asn	Leu 120	Asn	Leu	Pro	Ala	Pro 125	His	Ile	Met
Pro	130	Val	Gly	Leu	Pro	Glu 135	Leu	Val	Asn	Pro	Gly 140	Leu	Pro	Pro	Leu
Pro 149	Ser	Met	Pro	Pro	Arg 150	Asn			•						
<210> 694 <211> 109 <212> PRT <213> Homo sapiens															
Pro	00> 69 5 Gly L		Pro	Pro 5	Leu	Pro	Ser	Met	Pro	Pro	Arg	Asn	Leu	Pro 15	Gly
Ile	e Ala	Pro	Leu 20	Pro	Leu	Pro	Ser	Glu 25	Phe	Leu	Pro	Ser	Phe 30	Pro	Leu
Va:	l Pro	Glu 35	Ser	Ser	Ser	Ala	Ala 40	Ser	Ser	Gly	Glu	Leu 45	Leu	Ser	Ser
Let	Pro 50	Pro	Thr	Ser	Asn	Ala 55	Pro	Ser	qzA	Pro	Ala 60	Thr	Thr	Thr	Ala
Lys 65	Ala	Asp	Ala	Ala	Ser 70	Ser	Leu	Thr	Val	Asp 75	Val	Thr	Pro	Pro	Thr 80
Alá	Lys	Ala	Pro	Thr 85	Thr	Val	Glu	Asp	Arg 90	Val	Gly	Asp	Ser	Thr 95	Pro
Va]	Ser	Glu	Lys 100	Pro	Val	Ser	Ala	Ala 105	Val	Asp	Ala	Asn			
<21 <21	.0> 69 .1> 22 .2> PE	2 RT	sapie	ens										,	
	0> 69 Trp		Gly	Glu 5	Gly	Ser	Leu	Gly	Cys	Gly	Ile	Gly	Tyr	Gly 15	Tyr

<210> 696 <211> 10 .

Leu His Arg Ile Pro Thr 20

```
<212> PRT
<213> Homo sapiens
<400> 696
Ser Pro Ala Ala Leu Ala Gly Leu Arg Pro
<210> 697
<211> 8
<212> PRT
<213> Homo sapiens
<400> 697
Trp Gly Gly Gln Gly Leu Leu Gly
<210> 698
<211> 27
<212> PRT
<213> Homo sapiens
<400> 698
Arg Asn Gly Ala Leu Leu Asp Lys Asn Phe Phe Asn Ala Asn Ser His
Phe Pro Val Lys Gly Glu Arg Ile Arg Arg Arg
             20
<210> 699
<211> 97
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 699
Arg Gly Ser Gly Phe Gly Trp Thr Ser Phe Pro Arg Pro Leu Pro Thr
Glu Leu Thr Cys Pro Gly Phe His Arg Glu Arg Ala Phe Pro Pro Asp
                                  25
Gly Arg Val Arg Gly Val Arg Gly Trp Gly Ile Arg Arg Gly Cys Arg
         35
Ala Val Trp Gly Val Gly Ala Cys Gly Cys Ser Pro Gly Ser Ser Trp
Arg Gly Ser Ala His Arg Ala Ser Gly Pro Ala Asp Leu Pro Val Ala
Cys Arg Xaa Glu Gly Gly Ala Asp Ser Pro Ser Leu Leu Pro Ser Pro
```

Pro

```
<210> 700
```

<211> 23

<212> PRT

<213> Homo sapiens

Ala Val Trp Gly Val Gly Ala Cys Gly Cys Ser Pro Gly Ser Ser Trp

Arg Gly Ser Ala His Arg Ala

<210> 701

IIIIIII

£

<211> 77

<212> PRT

<213> Homo sapiens

Tyr Arg Pro Thr Met Glu Lys Met Lys Gln Val Val Thr Gln Thr Arg 5 . 10

Trp Met Arg Pro Asp Ala Lys Arg Ala Asn Arg Arg His Arg Arg Ile 25 20

Ser Gly Lys Ile Phe Ala Trp Asn Pro Leu Pro Lys Thr Arg Phe Ser 40

Arg Leu Leu Lys Ala Val Ser Glu Asn Thr Lys Arg Pro Glu Pro Ser 55

Arg Pro Pro Trp Met Val Ser His Ser Val Glu Ala Ser 65

<210> 702

<211> 27

<212> PRT

<213> Homo sapiens

Phe Ala Trp Asn Pro Leu Pro Lys Thr Arg Phe Ser Arg Leu Leu Lys

Ala Val Ser Glu Asn Thr Lys Arg Pro Glu Pro 25 20

<210> 703

<211> 93

<212> PRT

<213> Homo sapiens

```
<220>
<221> SITE
<222> (27)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (28)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (35)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
```

```
<222> (38)
```

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 703

Ile Tyr Lys Val Phe Arg His Thr Ala Gly Leu Lys Pro Glu Val Ser 1 5 10 15

Cys Phe Glu Asn Ile Arg Ser Cys Ala Arg Xaa Xaa Xaa Xaa Xaa Xaa 20 25 30

Xaa Xaa Xaa Xaa Xaa Trp Ile Phe Gly Val Leu His Val Val His 35 $$40\$

Ala Ser Val Val Thr Ala Tyr Leu Phe Thr Val Ser Asn Ala Phe Gln 50 55 60

Gly Met Phe Ile Phe Leu Phe Leu Cys Val Leu Ser Arg Lys Ile Gln 65 70 75 80

Glu Glu Tyr Tyr Arg Leu Phe Lys Asn Val Pro Cys Cys
85
90

<210> 704

<211> 55

<212> PRT

<213> Homo sapiens

<400> 704

Trp Ile Phe Gly Val Leu His Val Val His Ala Ser Val Val Thr Ala 1 5 10 15

Tyr Leu Phe Thr Val Ser Asn Ala Phe Gln Gly Met Phe Ile Phe Leu 20 25 30

Phe Leu Cys Val Leu Ser Arg Lys Ile Gln Glu Glu Tyr Tyr Arg Leu 35 40 45 ,

Phe Lys Asn Val Pro Cys Cys
50 55

<210> 705

<211> 26

<212> PRT

<213> Homo sapiens

<400> 705

Ile Tyr Lys Val Phe Arg His Thr Ala Gly Leu Lys Pro Glu Val Ser 1 5 10 15

Cys Phe Glu Asn Ile Arg Ser Cys Ala Arg
20 25

<210> 706

<211> 66

<212> PRT

<213> Homo sapiens

<400> 706

Ile Ile Tyr Lys Val Phe Arg His Thr Ala Gly Leu Lys Pro Glu Val
1 5 10 15

Ser Cys Phe Glu Asn Ile Arg Ser Cys Ala Arg Gly Ala Leu Ala Leu 20 25 30

Leu Phe Leu Leu Gly Thr Thr Trp Ile Phe Gly Val Leu His Val Val 35 40 45

His Ala Ser Val Val Thr Ala Tyr Leu Phe Thr Val Ser Asn Ala Phe 50 55 60

Gln Gly 65

<210> 707

<211> 32

<212> PRT

<213> Homo sapiens

<400> 707

Glu Val Ser Cys Phe Glu Asn Ile Arg Ser Cys Ala Arg Gly Ala Leu 1 5 10 15

Ala Leu Leu Phe Leu Leu Gly Thr Thr Trp Ile Phe Gly Val Leu His 20 25 30

<210> .708

<211> 86

<212> PRT

<213'> Homo sapiens

<400>.708

Thr Thr Ile Leu Arg Thr Cys Thr Ile Val Cys Phe Tyr Tyr Trp Phe 1 5 10 15

Asn Gly Val Met Val Leu Leu Phe Phe Leu Asp Arg Asn Leu Leu Thr 20 25 30

Phe Asn Gln Ala Ser Ile Met Pro Phe Ser Asn Thr Asp Phe Leu His 35 40 45

Cys Leu Ser Phe Lys Lys Leu Met Leu Leu Arg Tyr Ile Phe Tyr 50 55 60

Val Val Leu Thr Gly Pro Thr Leu Ser Leu Lys Gly Asp Glu Asn Gln 65 70 75 80

Ile Lys Asn Leu Phe Thr

```
<210> 709
<211> 23
<212> PRT
<213> Homo sapiens
<400> 709
Ile Val Cys Phe Tyr Tyr Trp Phe Asn Gly Val Met Val Leu Leu Phe
                     10
Phe Leu Asp Arg Asn Leu Leu
        20
<210> 710
<211> 24
<212> PRT
<213> Homo sapiens
<400> 710
Leu Leu Arg Tyr Ile Phe Tyr Val Val Leu Thr Gly Pro Thr Leu Ser
               5 10 15
Leu Lys Gly Asp Glu Asn Gln Ile
           20
<210> 711
<211> 50
<212> PRT
<213> Homo sapiens
Ala Leu Thr Arg Ile Pro Pro Gly Asp Trp Val Ile Asn Val Thr Ala
1 5 10
Val Ser Phe Ala Gly Lys Thr Thr Ala Arg Phe Phe Xaa His Ser Ser
   20 25
Pro Pro Ser Leu Gly Asp Gln Ala Arg Thr Asp Pro Gly His Gln Arg
       35
                 . 40
                                         45
Arg Asp
 50
<210> 712
<211> 38
<212> PRT
<213> Homo sapiens
Ser Met Leu Leu Phe Pro Leu Gln Glu Arg Pro Gln Gln Asp Ser
Phe Ile Arg Leu Leu Leu Ala Trp Gly Thr Arg Leu Glu Leu Thr Leu
           20
                            25
```

```
Asp Ile Lys Gly Gly Ile
         35
<210> 713
<211> 130
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (76)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (80)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (90)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (98)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (113)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 713
Thr Gly Leu Trp Ala Asp Gly Phe Ser Ser His Ile Ile Pro Pro Leu
Met Ser Arg Val Ser Ser Ser Leu Val Pro Gln Ala Arg Arg Arg Arg
                                 25
Met Lys Glu Ser Cys Cys Gly Leu Ser Cys Lys Gly Asn Ser Ser Asn
Ile Asp Tyr Pro Val Thr Gly Arg Asn Ser Cys Glu Arg Ala Pro Leu
Cys Ala Phe Ala Leu His Phe Gln Glu Arg Thr Xaa Ile Thr Gly Xaa
. 65
Gly Glu Asp Pro Gly Pro Phe Gln Ser Kaa Gly Arg Val Thr Ala Ser
                                    90 ·
Arg Xaa Thr Leu Ala Cys Ser His Val Ala Met Thr Pro Ala Gly Cys
Kaa Gln Ala Leu Gly Thr Pro Ser Ser Tyr Cys Val Arg Lys Ala Pro
```

```
115
                          120
                                             125
Arg Ala
  130
<210> 714
<211> 28
<212> PRT
<213> Homo sapiens
<400> 714
Gln Ala Arg Arg Arg Met Lys Glu Ser Cys Cys Gly Leu Ser Cys
Lys Gly Asn Ser Ser Asn Ile Asp Tyr Pro Val Thr
               25
           20
<210> 715
<211> 9
<212> PRT
<213> Homo sapiens
<400> 715
Leu Trp Arg Ser Ser Gly Val Glu Arg
<210> 716
<211> 27
<212> PRT
<213> Homo sapiens
<400> 716
Leu Gln Glu Val Asn Ile Thr Leu Pro Glu Asn Ser Val Trp Tyr Glu
               5 10
Arg Tyr Lys Phe Asp Ile Pro Val Phe His Leu
            20
-<210> 717
<211> 110
<212> PRT
<213> Homo sapiens
<400> 717
Met Gln Gly Ser Gly Ser Gln Phe Arg Ala Cys Leu Cys Leu Cys
          5
Phe Ser Cys Pro Cys Ser Pro Gly Gly Pro Arg Trp Asn Ser Arg Gln
                               25
Gly Gly Arg Arg Phe Pro Lys Thr Cys Arg Ala Ile Ser Gln Asn Leu
```

Val Phe Lys Tyr Lys Thr Phe Cys Pro Val Arg Tyr Met Gln Pro His

Arg Ser Ser 65	Leu	Cys	Leu 70	His	Phe	Thr	Ser	Tyr 75	Val	Phe	Ile	Leu	Ser 80		
Thr Trp Gly	Ser	Leu 85	Arg	Thr	Tyr	Ser	Thr 90	Asp	Leu	Lys	Lys	Lys 95	Lýs		
Lys Asn Ser	Arg 100		Gly	Pro	Val	Pro 105	Ile	Arg	Pro	Lys	Ser 110				
<210> 718 <211> 99 <212> DNA <213> Homo	sapi	ens				·									
<220> <221> SITE <222> (24) <223> n equ	als a	a,t,ç	g, o:	r c									·		
<400> 718															
TAGCATGTAG	CCAGʻ	rcga/	AT A	ACNT	ATAA	G GA	CAAA	GTGG	AGT	CCAC	GCG '	TGCG	GCCGTC	,	60
TAGACTAGTG (GATC(ccc	GG C'	rgca(GGAT' ,	I CG	GCAC(GAG		٠					99
<210> 719 <211> 51 <212> PRT <213> Homo :	sapie	ens													
<400> 719 Met Gln Gly 1	Ser	Gly 5	Ser	Gln	Phe	Arg	Ala 10	Cyś	Leu	Leu	Cys	Leu 15	Cys		
Phe Ser Cys	Pro 20	Cys	Ser	Pro	Gly	Gly 25	Pro	Arg	Trp	Asn	Ser 30	Arg	Gln		
Gly Gly Arg 35	Arg	Phe	Pro	Lys	Thr 40	Cys	Arg	Ala	Ile	Ser 45	Gln	Asn	Leu		
Val Phe Lys 50														-	
<210> 720 <211> 54 <212> PRT <213> Homo s	sapie	ens													
<400> 720 Pro Val Arg 1	Tyr	Met 5	Gln	Pro	His	Arg	Ser 10	Ser	Leu	Cys	Leu	His 15	Phe		
Thr Ser Tyr	Val	Phe	Ile	Leu	Ser	Thr	Trp	Gly	Ser	Leu	Arg	Thr	Tyr		

20 25 30

Ser Thr Asp Leu Lys Lys Lys Lys Lys Asn Ser Arg Gly Gly Pro Val 35 40 45

Pro Ile Arg Pro Lys Ser 50

<210> 721

<211> 38

<212> PRT

<213> Homo sapiens

<400> 721

Gly Glu Glu Gln Arg Asp Cys Ser Leu Gly Trp Arg Gly Val Gly Met
1 5 10 15

Arg Ala Thr His Cys Gln Ala Ala Arg.Met Phe Val Leu Phe Ser Leu 20 25 30

Pro Lys Tyr Ala Gly Leu

<210> 722

<211> 39

<212> PRT

<213> Homo sapiens

<400> 722

Thr Ser Gly Ser Pro Gly Cys Arg Ile Arg His Glu Leu Pro Gly Glu
1 10 15

Glu Gln Arg Asp Cys Ser Leu Gly Trp Arg Gly Val Gly Met Arg Ala
20 25 30

Thr His Cys Gln Ala Ala Arg 35

<210× 723

<211> 128

<212> PRT

<213> Homo sapiens

<400> 723

Glu Pro Pro Ile Ala Lys Gln Gln Glu Cys Ser Cys Phe Phe Pro Phe 1 10 15

Gln Asn Met Gln Gly Ser Gly Ser Gln Phe Arg Ala Cys Leu Leu Cys
20 25 30

Leu Cys Phe Ser Cys Pro Cys Ser Pro Gly Gly Pro Arg Trp Asn Ser

Arg Gln Gly Gly Arg Arg Phe Pro Lys Thr Cys Arg Ala Ile Ser Gln 50 60

Asn Leu Val Phe Lys Tyr Lys Thr Phe Cys Pro Val Arg Tyr Met Gln 65 70 75 80

Pro His Arg Ser Ser Leu Cys Leu His Phe Thr Ser Tyr Val Phe Ile 85 90 95

Leu Ser Thr Trp Gly Ser Leu Arg Thr Tyr Ser Thr Asp Leu Lys Lys 100 \cdot 105 110

Lys Lys Lys Asn Ser Arg Gly Gly Pro Val Pro Ile Arg Pro Lys Ser 115 120 125

<210> 724

<211> 31

<212> PRT

<213> Homo sapiens

<400> 724

Gln Phe Arg Ala Cys Leu Cys Leu Cys Phe Ser Cys Pro Cys Ser
1 5 10 15

Pro Gly Gly Pro Arg Trp Asn Ser Arg Gln Gly Gly Arg Arg Phe
20 25 30

<210> 725

<211> 23

<212> PRT

<213> Homo sapiens

<400> 725

Asn Gln Phe Thr Ser Cys Ile Leu Phe Cys Asp Gly Gly His Trp Arg

1 10 15

Glu Leu Leu Phe Gln Ser Ile 20

<210> 726

<211> 101

<212> PRT

<213> Homo sapiens

<100× 726

Ala Met Ser Ser Lys Leu Leu Asn Leu Leu Ala Leu Leu Gln Tyr Ser 1 5 10 15

Val His Asp His Cys His Pro Arg Arg Leu Leu Lys Arg Gly Ala Arg

Ala Thr Leu Arg His Lys Gly Trp Gly Pro Ser Ser Leu Arg Gly Cys
35 40 45

```
Glu Ser Phe Gln Ile Val Leu Ile Gly Trp Gly Pro Asp Leu Ala Val 50 55 60
```

Gly Phe Gly Arg Gly Lys Leu Leu Ser Arg Ser Leu Pro Val Arg His 65 70 75 80

Gly Gly Val Ser Glu Phe Cys Leu Pro His Arg Asp Val Val Arg Leu 85 90 95

Glu Lys Val Lys Lys 100

<210> 727

<211> .33

<212> PRT

<213> Homo sapiens

<400> 727

Gly Trp Gly Pro Asp Leu Ala Val Gly Phe Gly Arg Gly Lys Leu Leu 20 25 30

Ser

<210> 728

<211> 32

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 728

Thr Arg Lys Asn Ile Asp Phe Xaa Glu Thr Glu Lys Tyr Tyr Leu Phe 1 5 10 15

Ser Phe Ser Asn Asn Val Ser Phe Lys Asn Phe Trp Leu Lys Tyr Asn 20 25 30

<210> 729

<211> 161

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (50) <223> Xaa equals any of the naturally occurring L-amino acids <400> 729 Met Pro Arg Lys Thr Ser Lys Cys Arg Gln Leu Leu Cys Ser Gly Ala 15 Ser Arg Asn Ala Asp Thr Ala Ala Arg Gln Ser Thr Cys Ser Ser His . 25 Arg Pro Pro Gly Lys Ile Pro Ser Leu Gly Pro Arg Arg Xaa Pro Gly 35 40 Cys Xaa Ser Val Pro Ser Ser Arg Gly Glu Gln Ser Thr Gly Ser Pro 55 Ala Ala Pro Arg Cys Gly Arg Arg Asp Ala His Arg Gly Leu Pro Gly 75 Gly Ala Ala Met Thr Pro Gly Asp Thr Trp Ala Ser Phe Asn Pro Arg Ala Gly His Ser Lys Ser Gln Gly Glu Gly Gln Glu Ser Ser Gly Ala 105 100 Ser Arg Gln Asp Arg His Pro Val Ser His Trp Val Glu Arg Gln Arg 115 . 120 125 Glu Ala Trp Gly Ala Pro Arg Ser Ser Ser Ala Gly Gly Val Lys Val 135 Ala Ala Thr Thr Glu Arg Glu Pro Glu Phe Lys Ile Lys Thr Gly Lys . . 155 Ala <210> 730 <211> 88 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (34) <223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (38)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 730

```
Cys Ser Gly Ala Ser Arg Asn Ala Asp Thr Ala Ala Arg Gln Ser Thr
1 5 10 15
```

Cys Ser Ser His Arg Pro Pro Gly Lys Ile Pro Ser Leu Gly Pro Arg 20 25 30

Arg Xaa Pro Gly Cys Xaa Ser Val Pro Ser Ser Arg Gly Glu Gln Ser 35 40 45

Thr Gly Ser Pro Ala Ala Pro Arg Cys Gly Arg Arg Asp Ala His Arg 50 55 60

Gly Leu Pro Gly Gly Ala Ala Met Thr Pro Gly Asp Thr Trp Ala Ser 65 70 75 80

Phe Asn Pro Arg Ala Gly His Ser 85

<210> 731

<211> 59

<212> PRT

<213> Homo sapiens

<400> 731

Gln Gly Glu Gly Gln Glu Ser Ser Gly Ala Ser Arg Gln Asp Arg His

1 5 10 15

Pro Val Ser His Trp Val Glu Arg Gln Arg Glu Ala Trp Gly Ala Pro 20 25 30

Arg Ser Ser Ser Ala Gly Gly Val Lys Val Ala Ala Thr Thr Glu Arg 35 40 45

Glu Pro Glu Phe Lys Ile Lys Thr Gly Lys Ala 50 55

<210> 732

<211> 63

<212> PRT

<213> Homo sapiens

<400> 732

Ile Arg His Glu Gly Lys Arg Met Leu Asn Glu Ser Arg Lys Pro Leu 1 5 10 15

Ser Phe Ala Ser Arg Leu Ser Ser Leu Tyr Phe Lys Leu Gly Phe Pro 20 25 30

Phe Cys Gly Arg Ser Asn Leu Tyr Ser Thr Cys Thr Ala Ala Pro Gly
35 40 45

Gly Ser Pro Gly Leu Pro Leu Pro Phe Tyr Pro Val Ala Asp Gly 50 55 60

```
<211> 176
<212> PRT
<213> Homo sapiens.
<220>
<221> SITE
<222> (127)
<223> Xaa equals any of the naturally occurring L-amino acids
Thr Arg Ala Glu Ser Leu Phe Pro Leu Leu His Ala Phe Pro Val Phe
                                     10
Ile Leu Asn Ser Gly Ser Leu Ser Val Val Ala Ala Thr Phe Thr Pro
             20
                                 25
                                                     30
Pro Ala Leu Leu Leu Gly Ala Pro Gln Ala Ser Leu Cys Leu Ser
Thr Gln Trp Leu Thr Gly Cys Leu Ser Cys Leu Asp Ala Pro Leu Leu
                         55
Ser Cys Pro Ser Pro Trp Leu Leu Cys Pro Ala Leu Gly Leu Lys
Leu Ala His Val Ser Pro Gly Val Met Ala Ala Pro Pro Gly Arg Pro
Leu Cys Ala Ser Arg Leu Pro His Leu Gly Ala Ala Gly Glu Pro Val
           100
                                105
Leu Cys Ser Pro Arg Leu Leu Gly Thr Glu Leu Gln Pro Gly Xaa Leu
                           120
Arg Gly Pro Arg Leu Gly Ile Leu Pro Gly Gly Arg Trp Glu Glu Gln
   130
                       135
                                            140
Val Leu Cys Leu Ala Ala Val Ser Ala Phe Leu Asp Ala Pro Glu His
                   150
                                        155
```

<210> 734

<211> 29

<212> PRT

<213> Homo sapiens

165

<400> 734

Pro Ala Leu Gly Leu Lys Leu Ala His Val Ser Pro Gly Val Met Ala 1 5 10 15

Arg Ser Cys Arg His Phe Glu Val Phe Leu Gly Met Cys Gln Ile Thr

170

175

Ala Pro Pro Gly Arg Pro Leu Cys Ala Ser Arg Leu Pro

```
<210> 735
<211> 24
<212> PRT
<213> Homo sapiens
<400> 735
Gly Gly Arg Trp Glu Glu Gln Val Leu Cys Leu Ala Ala Val Ser Ala
                                   10
Phe Leu Asp Ala Pro Glu His Arg
            20
<210> 736
<211> 98
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 736
Ser Trp Pro Met Cys Pro Pro Glu Ser Trp Leu Leu Leu Gly Gly
                                    10
Leu Cys Val Arg His Val Phe His Thr Trp Gly Gln Leu Ala Ser Pro
            20
                                2.5
                                                    30
Cys Ser Val Pro Leu Gly Cys Leu Ala Gln Ser Cys Ser Leu Gly Xaa
Ser Val Asp Pro Asp Trp Gly Phe Cys Gln Gly Gly Asp Gly Arg Ser
                        55
Arg Cys Phe Ala Trp Arg Leu Cys Leu His Phe Trp Thr Pro Gln Ser
                    70
Thr Glu Val Ala Gly Thr Leu Arg Ser Ser Ser Ala Cys Ala Arg Leu
His Glu
<210> 737
<211> 29
<212> PRT
<213> Homo sapiens
<400> 737
Gly Asp Gly Arg Ser Arg Cys Phe Ala Trp Arg Leu Cys Leu His Phe
                5 . 10
Trp Thr Pro Gln Ser Thr Glu Val Ala Gly Thr Leu Arg
```

<210> 738 <211> 235 <212> PRT <213> Homo sapiens <400> 738 Met Ser Pro Arg Tyr Pro Gly Gly Pro Arg Pro Pro Leu Arg Ile Pro Asn Gln Ala Leu Gly Gly Val Pro Gly Ser Gln Pro Leu Leu Pro Ser Gly Met Asp Pro Thr Arg Gln Gln Gly His Pro Asn Met Gly Gly Pro -- 40 Met Gln Arg Met Thr Pro Pro Arg Gly Met Val Pro Leu Gly Pro Gln Asn Tyr Gly Gly Ala Met Arg Pro Pro Leu Asn Ala Leu Gly Gly Pro 70 Gly Met Pro Gly Met Asn Met Gly Pro Gly Gly Gly Arg Pro Trp Pro 90 Asn Pro Thr Asn Ala Asn Ser Ile Pro Tyr Ser Ser Ala Ser Pro Gly 110 Asn Tyr Val Gly Pro Pro Gly Gly Gly Pro Pro Gly Thr Pro Ile 115 Met Pro Ser Pro Ala Asp Ser Thr Asn Ser Gly Asp Asn Met Tyr Thr 135 Leu Met Asn Ala Val Pro Pro Gly Pro Asn Arg Pro Asn Phe Pro Met 150 Gly Pro Gly Ser Asp Gly Pro Met Gly Gly Leu Gly Gly Met Glu Ser 165 170 His His Met Asn Gly Ser Leu Gly Ser Gly Asp Met Asp Ser Ile Ser 185 180 Lys Asn Ser Pro Asn Asn Met Ser Leu Ser Asn Gln Pro Gly Thr Pro 200 Arg Asp Asp Gly Glu Met Gly Gly Asn Phe Leu Asn Pro Phe Gln Ser 215 Glu Ser Tyr Ser Pro Ser Met Thr Met Ser Val 235 230 225

<210> 739 <211> 114

<212> PRT

<213> Homo sapiens

<400> 739

Met Ser Pro Arg Tyr Pro Gly Gly Pro Arg Pro Pro Leu Arg Ile Pro 1 5 10 15

Asn Gln Ala Leu Gly Gly Val Pro Gly Ser Gln Pro Leu Leu Pro Ser 20 25 30

Gly Met Asp Pro Thr Arg Gln Gln Gly His Pro Asn Met Gly Gly Pro 35 40 45

Met Gln Arg Met Thr Pro Pro Arg Gly Met Val Pro Leu Gly Pro Gln 50 55 60

Asn Tyr Gly Gly Ala Met Arg Pro Pro Leu Asn Ala Leu Gly Gly Pro 65 70 75 80

Gly Met Pro Gly Met Asn Met Gly Pro Gly Gly Gly Arg Pro Trp Pro 85 90 95

Asn Pro Thr Asn Ala Asn Ser Ile Pro Tyr Ser Ser Ala Ser Pro Gly
100 105 110

Asn Tyr

<210> 740

<211> 81

<212> PRT

<213> Homo sapiens

<400> 740

Leu Asn Ala Leu Gly Gly Pro Gly Met Pro Gly Met Asn Met Gly Pro

1 5 10 15

Gly Gly Gly Arg Pro Trp Pro Asn Pro Thr Asn Ala Asn Ser Ile Pro 20 25 30

Tyr Ser Ser Ala Ser Pro Gly Asn Tyr Val Gly Pro Pro Gly Gly Gly 35 40 45

Gly Pro Pro Gly Thr Pro Ile Met Pro Ser Pro Ala Asp Ser Thr Asn 50 55 60

Ser Gly Asp Asn Met Tyr Thr Leu Met Asn Ala Val Pro Pro Gly Pro 65 70 75 80

Asn

<210> 741

<211> 70

<212> PRT

<213> Homo sapiens

```
Gly Pro Met Gly Gly Leu Gly Gly Met Glu Ser His His Met Asn Gly
                                  10
Ser Leu Gly Ser Gly Asp Met Asp Ser Ile Ser Lys Asn Ser Pro Asn
                             25
Asn Met Ser Leu Ser Asn Gln Pro Gly Thr Pro Arg Asp Asp Gly Glu
Met Gly Gly Asn Phe Leu Asn Pro Phe Gln Ser Glu Ser Tyr Ser Pro
                       55
Ser Met Thr Met Ser Val
<210> 742
<211> 14
<212> PRT
<213> Homo sapiens
<400> 742
Thr Cys Glu His Ser Ser Glu Ala Lys Ala Phe His Asp Tyr.
1 5 10 ,
<210> 743
<211> 19
<212> PRT
<213> Homo sapiens
<400> 743
Arg Arg Glu Thr Cys Glu His Ser Ser Glu Ala Lys Ala Phe His Asp
                                 10
1 5
Tyr Pro Phe
<210> 744
<211> 20
<212> PRT
<213> Homo sapiens
<400> 744
Thr Ile Thr Leu Phe Gln Ser Ala Trp Cys Phe Phe Ser Lys Tyr Cys
                                 10
Thr Asp Phe Thr
            20
<210> 745
<211> 105
<212> PRT
<213> Homo sapiens
```

```
<400> 745
Val Arg Gly Cys Glu Asp Gly Gly Gly Gly Ile Trp Gly Gly Trp
Trp Pro Gly Gln Gln Met Ala Pro Pro Trp Leu Ser Cys Pro His Arg
Gln Phe Pro His Phe His Ser Gly Arg Gln Arg Arg Gln Ser Asp Leu
                           40
Leu Lys Glu Glu Leu Pro Gln Pro Ser Gly Ala Ala Gly Arg Ala Ser
                       55
Gly Asn Lys Pro Tyr Thr Pro Pro Pro Ala Ser Asn Ser Leu Thr Leu
                   70
Arg Leu Leu Ser Phe Arg Phe Asn Ala Phe Asn Arg Ser His Pro Gln
                                   90
Pro Ser Leu Asn Tyr Lys Asp Arg Gln
  100
                              105
<210> 746
<211> 25
<212> PRT
<213> Homo sapiens
<400> 746
Pro Trp Leu Ser Cys Pro His Arg Gln Phe Pro His Phe His Ser Gly
Arg Gln Arg Arg Gln Ser Asp Leu Leu
            20
                              25
<210> 747
<211> 20
<212> PRT
<213> Homo sapiens
Arg Leu Leu Ser Phe Arg Phe Asn Ala Phe Asn Arg Ser His Pro Gln
Pro Ser Leu Asn
<210> 748
<211> 56
<212> PRT
<213> Homo sapiens
<400> 748
Arg Asp Ser Ser Leu Trp Ala Ala Leu Ser Phe Arg Gln Gln Cys
                 5
                                   10
```

Ser Ser Leu Ala Ser Cys Leu Val Ser Met Tyr Ser Arg Pro Gly Arg 20 25 30

Gln His Arg Ala Lys Ala Gly Ala Gly Ser Gln Thr Glu Gln Cys Trp 35 40 45

Gly Arg Lys Val Asp Ala Val Val
50 55

<210> 749

<211> 27

<212> PRT

<213> Homo sapiens

<400> 749

Cys Leu Val Ser Met Tyr Ser Arg Pro Gly Arg Gln His Arg Ala Lys 1 5 10 15

Ala Gly Ala Gly Ser Gln Thr Glu Gln Cys Trp
20 25

<210> 750

<211> 86

<212> PRT

<213> Homo sapiens

<400> 750

Pro Glu His Gly Phe Ser Ser Cys Asp Phe Trp Glu Gly Ala Pro Ser 1 5 10 15

Ser Gly Pro Lys Glu Gly Gly Arg Ser Pro Pro Gln Leu Ala Cys Val 20 25 30

Trp Gly Met Asn Leu Ser Ser Pro Pro Cys Leu Ala Leu Leu Thr Asn 35 40 45

Arg Ala Cys Leu Ala Val Asn Trp His Arg Val Thr Leu Phe Pro Gly 50 55 60

Ile Gln Val Cys Asn Gln Asn Thr Gly Glu Glu Lys Leu Gln Asp Pro 65 70 75 80

Cys Pro His Leu Ser Ser

85

<210> 751

<211> 30

<212> PRT

<213> Homo sapiens

<400× 751

Arg Ser Pro Pro Gln Leu Ala Cys Val Trp Gly Met Asn Leu Ser Ser 1 5 10 . 15

Pro Pro Cys Leu Ala Leu Leu Thr Asn Arg Ala Cys Leu Ala

30

```
<210> 752
```

<211> 74

<212> PRT

<213> Homo sapiens

<400> 752

<u>|</u>_.

COUFED

Cys Glu Arg Asp Ser Glu Thr Ser Ser Ile Ala Met Thr Cys Ile Lys . 5 10

His Lys Pro Pro Lys Gln Lys Lys Arg Leu Ser Leu Leu Pro Gly Phe 25

Arg Ser Ala Leu Pro Arg Val Cys Arg Cys His Met Ile Thr Val Gln

Arg Glu Ala Phe Arg Thr His Thr Gly Cys Ser Thr Ser Val His Leu

Pro Ser Arg Gly Gly Phe Leu Pro Asp Phe [′] 65 70

<210> 753

<211> 28

<212> PRT

<213> Homo sapiens

<400> 753

Lys Lys Arg Leu Ser Leu Leu Pro Gly Phe Arg Ser Ala Leu Pro Arg-10

Val Cys Arg Cys His Met Ile Thr Val Gln Arg Glu 20 25

<210> 754

<211> 59

<212> PRT

<213> Homo sapiens

Gln Ala Phe Val Leu Leu Ser Asp Leu Leu Leu Ile Phe Ser Pro Gln 5 10

Met Ile Val Gly Gly Arg Asp Phe Leu Arg Pro Leu Val Phe Phe Pro 25

Glu Ala Thr Leu Gln Ser Glu Leu Ala Ser Phe Leu Met Asp His Val 35 40 45

Phe Ile Gln Pro Gly Asp Leu Gly Ser Gly Ala 55

```
<211> 43
<212> PRT
<213> Homo sapiens
<400> 755
Ala Cys Ser Tyr Leu Leu Cys Asn Pro Glu Phe Thr Phe Phe Ser Arg
Ala Asp Phe Ala Arg Ser Gln Leu Val Asp Leu Leu Thr Asp Arg Phe
                                25
Gln Gln Glu Leu Glu Glu Leu Gln Val Gly
         35
<210> 756
<211> 35
<212> PRT
<213> Homo sapiens
<400> 756
Gln Lys Gln Leu Ser Ser Leu Arg Asp Arg Met Val Ala Phe Cys Glu
Leu Cys Gln Ser Cys Leu Ser Asp Val Asp Thr Glu Ile Gln Glu Gln
                               25
Val Ser Thr
       35
<210> 757
<211> 27
<212> PRT
<213> Homo sapiens
<400> 757
Gln Val Ile Leu Pro Ala Leu Thr Leu Val Tyr Phe Ser Ile Leu Trp
                                    10
Thr Leu Thr His Ile Ser Lys Ser Asp Ala Ser
            ~ 20
                                 25
<210> 758
<211> 31
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids
Ser Thr His Asp Leu Thr Arg Trp Glu Leu Tyr Glu Pro Cys Cys Gln
                                     10
```

```
Leu Leu Gln Lys Ala Val Asp Thr Gly Xaa Val Pro His Gln Val
                 25
          20
<210> 759 -
<211> 66
<212> PRT
<213> Homo sapiens
<400> 759
Thr Ser Phe Leu Phe Pro Leu Gln Ala Phe Val Leu Leu Ser Asp Leu
                                10
Leu Leu Ile Phe Ser Pro Gln Met Ile Val Gly Gly Arg Asp Phe Leu
       20
                             25
Arg Pro Leu Val Phe Phe Pro Glu Ala Thr Leu Gln Ser Glu Leu Ala
                          40
Ser Phe Leu Met Asp His Val Phe Ile Gln Pro Gly Asp Leu Gly Ser
                                        60
                      55
Gly Ala
65
<210> 760
<211> 68
<212> PRT
<213> Homo sapiens
<400> 760
Gly Trp Gly Ala Cys Ser Tyr Leu Leu Cys Asn Pro Glu Phe Thr Phe
Phe Ser Arg Ala Asp Phe Ala Arg Ser Gln Leu Val Asp Leu Leu Thr
                             25 ′
           20
Asp Arg Phe Gln Gln Glu Leu Glu Glu Leu Leu Gln Val Gly Ala Gly
             40 45
Ala Gly Gln Trp Asp Thr Pro Asn Lys Gly Gly Arg Gly Cys Lys Thr
                     55
Gly Asp Val Asp
 65
<210> 761
<211> 78
<212> PRT
<213> Homo sapiens
<400> 761
```

Val Trp Val Leu Asp Gly Ile Met Gly Thr Glu Glu Ser Val Ser Ser

Phe Phe Pro Phe Lys Pro Leu Cys Pro Gln Lys Gln Leu Ser Ser Leu

Asp Ser Arg Arg Arg Val Asn

150

T:

£

þ.

Arg Asp Arg Met Val Ala Phe Cys Glu Leu Cys Gln Ser Cys Leu Ser

40

```
Asp Val Asp Thr Glu Ile Gln Glu Gln Val Ser Thr Asp Ser Ser Gly
                        55
Ser Asn Lys Ala Ser Ile Pro Ala Pro Ile Pro Arg Asn
                    70
<210> 762
<211> 152
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (67)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 762
Asn Ala Ser Leu Pro Ser Thr Ser Glu Trp Leu Ser Ser Ser Pro
                                    10
Ser Arg Phe Tyr Trp Cys Leu Trp Ser Trp Phe Pro Leu Phe Phe Ser
                                25
Ser Ile Thr Phe Pro Phe Leu Pro Gln Ser Thr His Asp Leu Thr Arg
                           40
    35
Trp Glu Leu Tyr Glu Pro Cys Cys Gln Leu Leu Gln Lys Ala Val Asp
                        55
Thr Gly Xaa Val Pro His Gln Val Ser Gly Gln Ala Arg Asp Gly Leu
Gly Ala Gly Gly Leu Xaa Phe Lys Asp Leu Arg Ser Arg Trp Pro Leu
                                    90
Gly Val Ser Ser Leu Ser Ala Trp Ser Gly Gln Ser Glu Glu Asp Gln
Val Gly Gly His Leu Leu His Ser Ser Leu Arg Arg Trp Thr Leu
                           120
        115
Leu Pro Gly Ser Ser Trp Ile Ser Trp Lys Pro Arg Ile Ile Leu Arg
                                           140
                       135
```

```
<210> 763
<211> 38
<212> PRT
<213> Homo sapiens
<400> 763
Val Leu Gly Glu Met Leu Leu Trp Ile Phe Phe Pro Ser Gln Ser Ser
            5 .
                                   10
Phe Leu Asp Glu Asp Glu Val Tyr Asn Leu Ala Ala Thr Leu Lys Arg
            20
                                                  30
Leu Ser Ala Phe Tyr Lys
    35
<210> 764
<211> 44
<212> PRT
<213> Homo sapiens
<400> 764
Pro Lys Pro His Phe Ser Asn Pro Leu Leu Gln Val Ile Leu Pro
      5 10
Ala Leu Thr Leu Val Tyr Phe Ser Ile Leu Trp Thr Leu Thr His Ile
                               25
Ser Lys Ser Asp Ala Ser Pro Gly Glu Cys Gly Ser
<210> 765
<211> 7
<212> PRT
<213> Homo sapiens
<400> 765
His Cys Gln Phe Leu Leu Gly
 1
<210> 766
<211> 53
<212> PRT
<213> Homo sapiens
<400> 766
Glu Phe Gly Thr Ser Leu Val Ala Leu Glu Leu His Glu Leu Leu Tyr
                                   10
His Trp Glu Thr Arg Ala Gln Pro Ser Leu Ile Leu Tyr Val Val Ser
Asp Leu Arg Trp Met Glu Phe Arg Thr Ser Cys Leu Leu Phe Asp Phe
                           40
```

```
Val Leu Phe Leu Glu
    50
<210> 767
<211> 54
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (17)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 767
Thr Lys Pro Gly Met Val Gly His Val Pro Ile Val Pro Ala Thr Lys
                  5
                                    10
Kaa Ala Glu Ala Gly Gly Ser Pro Glu Pro Gly Ser Ser Thr Leu Gln
                                25
Trp Pro Met Ile Thr Pro Cys Thr Pro Ser Trp Ala Thr Glu Pro Asp
His Val Ser Glu Asp Glu
     50
<210> 768
<211> 30
<212> PRT
<213> Homo sapiens
<400> 768 '
Leu Leu Tyr His Trp Glu Thr Arg Ala Gln Pro Ser Leu Ile Leu Tyr
                 5 ,
Val Val Ser Asp Leu Arg Trp Met Glu Phe Arg Thr Ser Cys
                25
           20
<210> 769
<211> 106
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 769
Leu Ala Val Ser Thr Ser Phe Ile Cys Cys Ala Asp Ile Ser Thr Ala
Leu Pro Leu Gly Ser Ser Arg Pro Ala Pro Ala Pro Arg His Arg Glu
                                 25
             20
```

His Glu His Gly His Gln Ala Arg Pro Pro Arg Leu Leu Xaa Thr Ser 35 40 45

Leu Met Pro Leu Ser Thr Pro Ala Ala Gln Leu Leu Trp Thr Gln 50 55 60

Leu Thr Pro Met Gly Gly Arg Pro Gly Gly Arg His Ser Pro Pro Thr 65 70 75 80

Leu His Thr Gly Pro Arg Ala Leu Pro Pro Gly Pro Pro His Pro Ser 85 90 95

Leu His Val Ala Ala Leu Ser Leu Leu Arg 100 105

<210> 770

<211> 85

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 770

Ala Pro Ala Val Pro His Gln Pro Pro Gly Thr Glu Ser Thr Ser Met

1 10 15

Gly Thr Lys Pro Gly Leu Pro Gly Cys Ser Xaa Arg Pro Leu Cys His

Tyr Gln His Gln Leu Xaa Pro Ser Tyr Phe Gly His Ser Ser Pro Pro
35 40 45

Trp Gly Ala Val Leu Val Gly Val Thr Pro His Pro Arg Cys Thr Pro 50 55 60

Ala Pro Gly Pro Cys Arg Leu Gly Leu His Thr His Pro Cys Thr Trp 65 70 75 80

Gln Leu Cys Leu Cys

85

<210> 771

<211> 28

<212> PRT

<213> Homo sapiens

<400> 771

Cys Ala Asp Ile Ser Thr Ala Leu Pro Leu Gly Ser Ser Arg Pro Ala

1 5 10 15

Pro Ala Pro Arg His Arg Glu His Glu His Gly His 20 25

<210> 772

<211> 25

<212> PRT

<213> Homo sapiens

<400> 772

Trp Thr Gln Leu Thr Pro Met Gly Gly Arg Pro Gly Gly Arg His Ser 1 5 10 15

<210> 773

<211> 20

<212> PRT

<213> Homo sapiens

<400> 773

His Gln Pro Pro Gly Thr Glu Ser Thr Ser Met Gly Thr Lys Pro Gly 1 $$ 5 $$ 10 $$ 15

Leu Pro Gly Cys 20

<210> 774

<211> 64

<212> PRT

<213> Homo sapiens

<400> 774

Ser Arg Gly Ser Leu Leu Pro Pro His Leu Pro His Arg Val Val 1 5 10 15

Arg Val His Arg Gly Ala Lys Ser Leu Lys Ala Leu Arg Gln Tyr Ile 20 25 30

Gly Ala Ala His Leu Gln Leu Pro Trp Asp Gly Lys Asp Pro Ala Arg 35 40 45

Pro Leu Gly Ile Thr Leu Cys Leu Gln Met Glu Ile Gln Val Leu Gly 50 55 60

<210> 775

<211> 150

<212> PRT

<213> Homo sapiens

<400> 775
Cys Cys Ser Phe Gly Phe Tyr Tyr Met Val Gly Ser Asp Thr Ala Glu
1 5 10 15

Lys Gln Gly Pro Ile Pro Gly Ser Gln Thr Gln Glu Gly Pro Trp Leu 20 25 30

Ser Arg His Thr His Ser Pro Arg Ala Val Pro Glu Ser Ser Thr Ala 35 40 45

Pro Ala Gln Pro Leu Leu Pro Leu Pro Ala Pro Gln Ala Arg Arg 50 55 60

Trp Ala Ser Asn Ala Asn Gly Trp Gly Trp Asp His Gln Arg Glu Gly 65 70 75 80

Gln Ala Asn Tyr Pro Tyr Ser Ala Arg Pro Ala Pro His Asn Leu His 85 90 95

Pro Gln Tyr Leu Asn Leu His Leu Gln Thr Gln Cys Tyr Ala Gln Gly
100 105 110

Ser Gly Trp Val Leu Pro Ile Pro Gly Gln Leu Lys Val Gly Gly Pro 115 120 125

Tyr Ile Leu Pro Glu Gly Leu Gln Gly Leu Cys Ser Ser Val His Pro 130 135 . 140

His Asn Asn Pro Val Arg 145 150

<210> 776

<211> 25

<212> PRT

<213> Homo sapiens

<400> 776

His Arg Gly Ala Lys Ser Leu Lys Ala Leu Arg Gln Tyr Ile Gly Ala 1 5 10 15

Ala His Leu Gln Leu Pro Trp Asp Gly
20 25

<210> 777

<211> 21

<212> PRT

<213> Homo sapiens

<400> 777

Pro Ala Pro Gln Ala Arg Arg Trp Ala Ser Asn Ala Asn Gly Trp Gly

1 5 10 15

Trp Asp His Gln Arg

```
<210> 778
<211> 23
<212> PRT
<213> Homo sapiens
<400> 778
His Pro Gln Tyr Leu Asn Leu His Leu Gln Thr Gln Cys Tyr Ala Gln
                                      10
Gly Ser Gly Trp Val Leu Pro
             20
<210> 779
<211> 64
<212> PRT
<213> Homo sapiens
<400> 779
Thr Asn Gly Ile Met Gln Tyr Val Thr Phe Cys Val Trp Leu Ile Leu
Phe Ser Ile Met Phe Leu Arg Phe Ile Gln Ala Val Ala Cys Ile Ser
             20
                                  25
Thr Ser Phe Leu Phe Leu Ala Glu Tyr Tyr Ser Ile Ile Trp Ile Tyr
                             40
His Asn Ser Phe Thr Tyr Ser Ser Phe Val Ser Ala Val Trp Leu Leu
                         55
<210> 780
<211> 123
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (46)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (47)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 780
Tyr Asn Phe Met Phe Asn Phe Ser Lys Asn Cys Gln Lys Val Phe His
```

1				5					10					15	
Ser	Gly	Cys	Ile 20	Ile	Tyr	Ile	Pro	Thr 25	Gly	Asn	Val	Gln	Gly 30	Phe	Lei
Phe	Phe	His 35	Ile	Leu	Ala	Leu	Thr 40	Asn	Thr	Ser	Phe	Xaa 45.		Xaa	Phe
Cys	Phe 50	Phe	Ile	Ile	Ala	Thr 55	Lėu	Val	Asp	Val	Lys 60	Trp	His	Leu	Ile
Val 65	Leu	Ile	Cys	Ile	Ser 70	Leu	Met	Thr	Asn	Asp 75	Ile	Ile	Leu	Phe	Le:
Cys	Ala	Tyr	Gly	Ser 85	Lys	Val	Phe	Pro	Trp 90	Arg	Asn	Val	Pro	Ser 95	Se
Pro	Leu	Pro	Phe 100	Gln	Asn	Leu	Val	Ile 105	Cys	Leu	Leu	Leu	Phe 110	Ser	Phe
Lys	Lys	Phe 115	Trp	Pro	Gly	Ala	Val 120	Ala	His	Leu					
<211 <212	0> 78 1> 91 2> PF 3> Ho	L RT	sapie	ens											
<222)> L> S1 2> (3 3> Xa	34)	quals	s any	y of	the	nati	urali	Ly o	ccuri	ring	L-ar	mino	acio	ds
<222)> L> SI 2> (6 3> Xa	56)	quals	s any	y of	the	nati	ural	Ly oc	ccuri	ring	L-ar	mino	acio	ds
<222)>· L> SI 2> (7 3> Xa	79)	quals	s any	/ of	the	nati	ırall	Ly oc	ccuri	ring	L-ar	nino	acio	ds
)> 78 Val		Gln	Ala 5	Arg	Val	Gln	Trp	Arg 10	Asp	Leu	Gly	Ser	Leu 15	Glr
Pro	Pro	Pro	Pro 20	Gly	Phe	Lys	Arg	Phe 25	Ser	Cys	Leu	Ser	Leu 30	Leu	Ser
Arg	Xaa	Asp 35	Tyr	Met	His	Leu,	Pro 40	Pro	Arg	Pro	Ala	Asn 45	Phe	Cys	Ile
Phe	Ser 50	Lys	Met	Gly	Phe	His 55	His	Val	Gly	Gln	Ala 60	Gly	Leu	Glu	Va]
Leu	Xaa	Ser	Ser	qzA	Leu	Pro	Ala	Leu	Ala	Ser	Gln	Ser	Ala	Xaa	Ile

65 70 75 80

Thr Gly Glu Pro Leu Arg Leu Ala Arg Ile Ser 85 90

<210> 782

<211> 25

<212> PRT

<213> Homo sapiens

<400> 782

Leu Pro Pro Arg Pro Ala Asn Phe Cys Ile Phe Ser Lys Met Gly Phe 1 5 10 15

His His Val Gly Gln Ala Gly Leu Glu 20 25

<210> 783

<211> 24

<212> PRT

<213> Homo sapiens

<400> 783

Cys Ile Ser Thr Ser Phe Leu Phe

<210> 784

<211> 90

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 784

Ala Leu Val Pro Ser Pro Gln Gln Ile Leu Pro Ser Cys Phe Ser Leu

1 5 10 15

Met Trp Gln Val Thr Thr Lys Ser Ala Leu Val Phe Phe Lys Cys Ile 20 25 30

Tyr Ile Pro Phe Leu Ser Ala Pro Ser Leu Pro Arg Leu Glu Asn Cys 35 40 45

Leu Ile Phe Cys Ser Leu Asp Val Gln Ser Gln Leu Val Phe Leu Ser 50 55 60

Ser Pro Pro Val Ala Gly Val Leu Phe Phe Phe Leu Leu Ser Pro Leu 65 70 75 80

```
Gly Ser Lys Ser Cys Ser Thr Val Glu Xaa
                 8.5
<210> 785
<211> 26
<212> PRT
<213> Homo sapiens
<400> 785
Ala Pro Ser Leu Pro Arg Leu Glu Asn Cys Leu Ile Phe Cys Ser Leu
                                     10
Asp Val Gln Ser Gln Leu Val Phe Leu Ser
<210> 786
<211> 13
<212> PRT
<213> Homo sapiens
<400> 786
Ser Ser Pro Ser Arg Val Arg Leu Arg His Thr Pro Gly
                 5
<210> 787
<211> 76
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (43)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (60)
<223> Xaa equals any of the naturally occurring L-amino acids
Ser Asn Thr Asn Tyr Cys Phe Met Phe Phe Tyr Phe Pro Val Lys Val
Leu Val Pro Phe Lys Asn Cys Tyr Ile Leu Ser Leu Leu Ile Leu Pro
             20
Cys Cys Ile Cys Gly His Gln Phe Pro Arg Xaa Gln Ala Cys Thr Phe
Cys Leu His Thr Leu Gly Gly Phe Ser Phe Ser Xaa Leu Phe Leu Val
                         55
Leu Leu Ser Phe Tyr Val Gln Thr Gly Phe Ser Val
65
                    70
```

```
<210> 788
<211> 119
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
 <222> (97)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
 <221> SITE
 <222> (103)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 788
 Gly Thr Ser Arg His Gly Gln Arg Pro Ile Ala Pro Gly Thr Pro Trp
                                      10.
 Gln Arg Glu Pro Arg Val Glu Val Met Asp Pro Ala Gly Gly Pro Arg
                                                   ° 30
                                  25
 Gly Val Leu Pro Arg Pro Cys Arg Xaa Leu Val Leu Leu Asn Pro Arg
 Gly Gly Lys Gly Lys Ala Leu Gln Leu Phe Arg Ser His Val Gln Pro
                          55
 Leu Leu Ala Glu Ala Glu Ile Ser Phe Thr Leu Met Leu Thr Glu Arg
                                          75
                      70
 65
 Arg Asn His Ala Arg Glu Leu Val Arg Ser Glu Glu Leu Gly Arg Trp
 Xaa Ala Leu Val Val Met Xaa Gly Asp Gly Leu Met His Glu Val Val
                                 105
             100
 Asn Gly Leu His Gly Ala Ala
         115
 <210> 789
 <211> 24
 <212> PRT
 <213> Homo sapiens
<400> 789
 Arg Pro Ile Ala Pro Gly Thr Pro Trp Gln Arg Glu Pro Arg Val Glu
                                      10
                   5
 Val Met Asp Pro Ala Gly Gly Pro
```

```
<210> 790
<211> 15
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 790
Ala Ser Gly Pro Leu Met Gly Xaa Ala Val Leu Lys Ile Phe Glu
                                     10
<210> 791
<211> 18
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
Leu Leu Arg Ser Ala Leu Xaa Ser Pro His Leu Pro Thr Pro Val Pro
                                    10
 1
Leu Val
<210> 792
<211> 69
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (24)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (45)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (46)
```

<223> Xaa equals any of the naturally occurring L-amino acids <400> 792 Gln Xaa Arg Asn Leu Ala Gln Glu Ala Phe Lys Trp Ile Pro Gln Asp Arg Pro Thr Val Arg Ser Arg Xaa Arg Met Gly Leu Ser Ile Arg Leu Pro Ile Leu Ala Ser Asn Cys Cys Ala Leu Pro Phe Xaa Xaa Pro Thr 40 Ser Pro Leu Gln Cys Leu Trp Ser Cys His Cys Ser Phe Gln Ala Asn 50 55 60 Thr Gly Leu Ala Ser <210> 793 <211> 59 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (53) <223> Kaa equals any of the naturally occurring L-amino acids Gln Met Thr Gln Glu Pro Pro Thr Ser Val Arg Ala His Gly Ile Ala 10 Ala Trp Gly Asn Gly Cys Arg Asp Lys Asn Thr Lys Arg Leu Ile Gln 25 Tyr Trp Pro Glu Ser Cys Ser Gly Met Thr Lys Gly Thr Gly Val Gly 40 Arg Trp Gly Glu Xaa Arg Ala Glu Arg Ser Ser <210> 794 <211> 21 <212> PRT <213> Homo sapiens <400> 794 His Gly Ile Ala Ala Trp Gly Asn Gly Cys Arg Asp Lys Asn Thr Lys 10 Arg Leu Ile Gln Tyr 20. <210> 795

<210> 795 <211> 13

<212> PRT

```
<212> PRT
<213> Homo sapiens
<400> 795
Cys Glu Arg Ser Gly Tyr Thr Arg Met Ala Met Asp Thr
                  5
<210> 796
<211> 132
<212> PRT
<213> Homo sapiens
<400> 796
Thr Gly Ser Ile Leu Ala Val Gly Lys Lys Tyr Ser Leu Gly Ser Tyr
                                     10
Ser Arg Gly Asp Trp His Met Arg Val Val Gly Leu Arg Gly Leu Gly
             20
Ala Ser Thr Leu Gln Gly Leu Leu Ile Gly Ile Lys Pro Asn Lys Pro
Gln Gly Arg Gly Lys Leu Gln Gly Arg Ser Ser Arg Lys Asp Thr Val
Leu Trp Pro Ser Pro Glu His Pro His Met Val Ser Met Ala Ile Leu
                     70
Val Tyr Pro Asp Leu Ser His Tyr Ser Asn Pro His Ser Thr Pro Ala
Ala Leu Leu Gly Cys Trp Pro Pro Phe Arg Glu Gly Glu Ile Leu Gly
             100
Leu Gln Arg Pro Gly Gln Trp Pro Glu Glu Arg Cys Asp Arg Pro Trp
                             120
        115
Leu Pro Pro Cys
   130
<210> 797
<211> 29
<212> PRT
<213> Homo sapiens
<400> 797
Gly Ser Tyr Ser Arg Gly Asp Trp His Met Arg Val Val Gly Leu Arg
Gly Leu Gly Ala Ser Thr Leu Gln Gly Leu Leu Ile Gly
                                  25
              20.
<210> 798
<211> 27
```

```
<213> Homo sapiens
<400> 798
Ser Thr Pro Ala Ala Leu Leu Gly Cys Trp Pro Pro Phe Arg Glu Gly
Glu Ile Leu Gly Leu Gln Arg Pro Gly Gln Trp
<210> 799
<211> 44
<212> PRT
<213> Homo sapiens
<400> 799
Thr Met Gly Thr Trp Val Asp Trp Leu Thr Thr Asn Thr Ala His Thr
Pro Ala Ile Ala Ala Ile Cys Ala Glu Asp Phe Pro Gln Arg His
                               25
Cys Gly Ser Val Glu Arg Ser Pro Asp Gln Ala Cys
<210> 800
<211> 23
<212> PRT
<213> Homo sapiens
<400> 800
Thr Asn Thr Ala His Thr Pro Ala Ile Ala Ala Ala Ile Cys Ala Glu
                                    10
Asp Phe Pro Gln Arg His Cys
             20
<210> 801
<211> 15
<212> PRT
<213> Homo sapiens
<400> 801
Met Ser Pro Glu Thr Lys Gly Lys Gly Arg Ser Phe Pro Leu Lys
                                   10
<210> 802
<211> 82
<212> PRT
<213> Homo sapiens
<400> 802
Cys Gln Asn Lys Cys Ser Glu Thr Thr Cys Gly Arg Thr Arg Arg Glu
                                    10
```

Ser Asn Lys Gln Ala Arg Ala Met Ala Phe Ile Phe Lys Gly Lys Asp 20 25 30

Leu Pro Phe Pro Phe Val Ser Gly Asp Ile Gln Pro Lys Ser Ser Gly 35 40 45

Ser Met Ala Pro Asp Gln Gln Gly Leu Cys Tyr Leu Gly Ser Trp Arg 50 55 60

Ser His Leu Tyr Cys Arg Leu Leu Pro Met Asp Gln Val Ser Pro Ala 65 70 75 80

Leu Cys

<210> 803

<211> 63

<212> PRT

<213> Homo sapiens

<400> 803

Lys Pro Ser Pro Gly Leu Ala Tyr Cys Ser Leu Ser Trp Ser Phe His 1 5 10 15

Met Leu Phe Leu Asn Ile Cys Ser Gly Ile Thr Ile Pro Val Ile Leu 20 . 25 30

Ser Ser Gly Pro Ser His Leu Ser Thr Leu Ser Leu Ala Val Ser Pro 35 40 45

Arg Arg Pro Gly Thr Trp Val Lys Ala Cys Ser Cys Trp Cys Pro 50 60

<210> 804

<211> 25

<212> PRT

<213> Homo sapiens

<400> 804

Asn Lys Gln Ala Arg Ala Met Ala Phe Ile Phe Lys Gly Lys Asp Leu
1 5 10 15

Pro Phe Pro Phe Val Ser Gly Asp Ile
20 . 25

<210> 805

<211> 21

<212> PRT

<213> Homo sapiens

<400> 805

Tyr Leu Gly Ser Trp Arg Ser His Leu Tyr Cys Arg Leu Leu Pro Met 1 5 10 15

Asp Gln Val Ser Pro

20

```
<210> 806
<211> 25
<212> PRT
<213> Homo sapiens
<400> 806
Gly Ile Thr Ile Pro Val Ile Leu Ser Ser Gly Pro Ser His Leu Ser
                                     10
Thr Leu Ser Leu Ala Val Ser Pro Arg
<210> 807
<211> 11
<212> PRT .
<213> Homo sapiens
<400> 807
Leu Glu Arg Leu Gly Val Gly Arg Gly Leu Glu
                  5
<210> 808
<211> 67
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (55)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 808
Asp Leu Pro Pro Cys Trp Thr Thr Leu Lys Glu His Gln Cys Phe Met
Gln Tyr Gln Leu Phe Thr Ile Gln Cys Lys Val Val Glu Gln Thr Ile
Cys Glu Asp Glu Arg Lys Met Glu Ser Thr Cys Leu Thr Leu Ala Xaa
    . 35
                                                 45
                             40
Pro Glu Ser Val Arg Gln Xaa Cys Pro Ala Thr Leu Trp Ser Ser Met
Asn Ile Cys
 65
```

```
<210> 809
<211> 49
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids
Thr Asn Arg Val Xaa Leu Ser Trp Arg Lys Glu Glu Gln Arg Met Gly
                                     10
Arg Thr Glu Thr Gly Ala Lys Asp Lys Gly Arg Asp Phe Leu Glu Arg
Gly Ser Arg Gly Trp Gln Leu Tyr Thr Gly Ala Ala Asp Thr Glu Glu
                             40
Val
<210> 810
<211> 207
<212> PRT
<213> Homo sapiens
<400> 810
Glu Gln Val Leu Ala Leu Trp Pro Arg Phe Glu Leu Ile Leu Glu
                                     10
Met Asn Val Gln Ser Val Arg Ser Thr Asp Pro Gln Arg Leu Gly Gly
             20
                                 25
Leu Asp Thr Arg Pro His Tyr Ile Thr Arg Arg Tyr Ala Glu Phe Ser
Ser Ala Leu Val Ser Ile Asn Gln Thr Ile Pro Asn Glu Arg Thr Met
Gln Leu Gly Gln Leu Gln Val Glu Val Glu Asn Phe Val Leu Arg
Val Ala Ala Glu Phe Ser Ser Arg Lys Glu Gln Leu Val Phe Leu Ile
Asn Asn Tyr Asp Met Met Leu Gly Val Leu Met Glu Arg Ala Ala Asp
           100
                                105
Asp Ser Lys Glu Val Glu Ser Phe Gln Gln Leu Leu Asn Ala Arg Thr
                            120
Gln Glu Phe Ile Glu Glu Leu Leu Ser Pro Pro Phe Gly Gly Leu Val
   130
```

Ala Phe Val Lys Glu Ala Glu Ala Leu Ile Glu Arg Gly Gln Ala Glu

145 150 155 160 Arg Leu Arg Gly Glu Glu Ala Arg Val Thr Gln Leu Ile Arg Gly Phe 170 Gly Ser Ser Trp Lys Ser Ser Val Glu Ser Leu Ser Gln Asp Val Met 180 185 Arg Ser Phe Thr Asn Phe Arg Asn Gly Thr Ser Ile Ile Gln Gly 200 <210> 811 <211> 110 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (72) <223> Xaa equals any of the naturally occurring L-amino acids <400> 811 Ala Leu Leu Lys Tyr Arg Phe Phe Tyr Gln Phe Leu Leu Gly Asn Glu 1 5 10 Arg Ala Thr Ala Lys Glu Ile Arg Asp Glu Tyr Val Glu Thr Leu Ser Lys Ile Tyr Leu Ser Tyr Tyr Arg Ser Tyr Leu Gly Arg Leu Met Lys Val Gln Tyr Glu Glu Val Ala Glu Lys Asp Asp Leu Met Gly Val Glu Asp Thr Ala Lys Lys Gly Phe Xaa Ser Lys Pro Ser Leu Arg Ser Arg Asn Thr Ile Phe Thr Leu Gly Thr Arg Gly Ser Val Ile Ser Pro Thr Glu Leu Glu Ala Pro Ile Leu Val Pro His Thr Ala Gln Arg 105 <210> 812 <211> 97 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (16) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (38)

<220> <221> SITE

<223> Xaa equals any of the naturally occurring L-amino acids <400> 812 Glu Gln Arg Tyr Pro Phe Glu Ala Leu Phe Arg Ser Gln His Tyr Xaa Leu Leu Asp Asn Ser Cys Arg Glu Tyr Leu Phe Ile Cys Glu Phe Phe 25 Val Val Ser Gly Pro Xaa Ala His Asp Leu Phe His Ala Val Met Gly Arg Thr Leu Ser Met Thr Leu Lys His Leu Asp Ser Tyr Leu Ala Asp 55 Cys Tyr Asp Ala Ile Ala Val Phe Leu Cys Ile His Ile Val Leu Arg 70 Phe Arg Asn Ile Ala Ala Lys Arg Asp Val Pro Ala Leu Asp Arg Tyr 90 - 85 Trp <210> 813 <211> 26 <212> PRT <213> Homo sapiens <400> 813 Gly Gly Leu Asp Thr Arg Pro His Tyr Ile Thr Arg Arg Tyr Ala Glu 10 Phe Ser Ser Ala Leu Val Ser Ile Asn Gln 20 <210> 814 <211> 20 <212> PRT <213> Homo sapiens Ser Arg Lys Glu Gln Leu Val Phe Leu Ile Asn Asn Tyr Asp Met Met Leu Gly Val Leu 20 <210> 815 <211> 411 <212> PRT <213> Homo sapiens

```
<222> (72)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (111)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (127)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (149)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 815
Ala Leu Leu Lys Tyr Arg Phe Phe Tyr Gln Phe Leu Leu Gly Asn Glu
Arg Ala Thr Ala Lys Glu Ile Arg Asp Glu Tyr Val Glu Thr Leu Ser
Lys Ile Tyr Leu Ser Tyr Tyr Arg Ser Tyr Leu Gly Arg Leu Met Lys
         35.
                             40
Val Gln Tyr Glu Glu Val Ala Glu Lys Asp Asp Leu Met Gly Val Glu
Asp Thr Ala Lys Lys Gly Phe Xaa Ser Lys Pro Ser Leu Arg Ser Arg
Asn Thr Ile Phe Thr Leu Gly Thr Arg Gly Ser Val Ile Ser Pro Thr
                                     90
                 85
Glu Leu Glu Ala Pro Ile Leu Val Pro His Thr Ala Gln Arg Xaa Glu
                                105
            100
Gln Arg Tyr Pro Phe Glu Ala Leu Phe Arg Ser Gln His Tyr Xaa Leu
Leu Asp Asn Ser Cys Arg Glu Tyr Leu Phe Ile Cys Glu Phe Phe Val
                        135
Val Ser Gly Pro Xaa Ala His Asp Leu Phe His Ala Val Met Gly Arg
                                        155
                    150
Thr Leu Ser Met Thr Leu Lys His Leu Asp Ser Tyr Leu Ala Asp Cys
                165
                                    170
Tyr Asp Ala Ile Ala Val Phe Leu Cys Ile His Ile Val Leu Arg Phe
                                185
Arg Asn Ile Ala Ala Lys Arg Asp Val Pro Ala Leu Asp Arg Tyr Trp
```

200

195

Glu Gln Val Leu Ala Leu Leu Trp Pro Arg Phe Glu Leu Ile Leu Glu 215 210

Met Asn Val Gln Ser Val Arg Ser Thr Asp Pro Gln Arg Leu Gly Gly 235

Leu Asp Thr Arg Pro His Tyr Ile Thr Arg Arg Tyr Ala Glu Phe Ser 245

Ser Ala Leu Val Ser Ile Asn Gln Thr Ile Pro Asn Glu Arg Thr Met 265

Gln Leu Leu Gly Gln Leu Gln Val Glu Val Glu Asn Phe Val Leu Arg 280

Val Ala Ala Glu Phe Ser Ser Arg Lys Glu Gln Leu Val Phe Leu Ile 295 290

Asn Asn Tyr Asp Met Met Leu Gly Val Leu Met Glu Arg Ala Ala Asp 315 310

Asp Ser Lys Glu Val Glu Ser Phe Gln Gln Leu Leu Asn Ala Arg Thr 330 325

Gln Glu Phe Ile Glu Glu Leu Leu Ser Pro Pro Phe Gly Gly Leu Val 345

Ala Phe Val Lys Glu Ala Glu Ala Leu Ile Glu Arg Gly Gln Ala Glu 360

Arg Leu Arg Gly Glu Glu Ala Arg Val Thr Gln Leu Ile Arg Gly Phe 375

Gly Ser Ser Trp Lys Ser Ser Val Glu Ser Leu Ser Gln Asp Val Met 390

Arg Ser Phe Thr Asn Phe Arg Asn Gly Thr Ser 405

<210> 816

<211> 82

<212> PRT

<213> Homo sapiens

<400> 816

Pro Ala Asp Leu Arg Ala Val Ser Gly Thr Ser Glu Val Gly Leu Met 10

Leu Leu Glu Leu His His Lys Val Val Ash Val Asp Glu Leu Ser Pro 20

Gly Arg Glu Gly Ser Glu Leu Arg Leu Gly Gln His Pro Val Glu Ala

Met Ile Glu Leu Asp Gln Leu Gly Gln Arg Ser Leu Asn Asp Thr Gly 55 50

```
Ala Ile Ser Glu Val Gly Glu Thr Pro His Tyr Ile Leu Thr Gln Arg
Phe His
<210> 817
<211> 120
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (12)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (28)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 817
Gly Pro His Pro Gly Ala Ser His Ser Ala Ala Xaa Glu Gln Arg Tyr
                                     10
Pro Phe Glu Ala Leu Phe Arg Ser Gln His Tyr Xaa Leu Leu Asp Asn
Ser Cys Arg Glu Tyr Leu Phe Ile Cys Glu Phe Phe Val Val Ser Gly
Pro Xaa Ala His Asp Leu Phe His Ala Val Met Gly Arg Thr Leu Ser
                         55
Met Thr Leu Lys His Leu Asp Ser Tyr Leu Ala Asp Cys Tyr Asp Ala
                    70
Ile Ala Val Phe Leu Cys Ile His Ile Val Leu Arg Phe Arg Asn Ile
Ala Ala Lys Arg Asp Val Pro Ala Leu Asp Arg Tyr Trp Gly Thr Gly
                     105
            100
Ala Cys Leu Ala Met Ala Thr Val
                           120
```

<210> 818 <211> 303

<212> PRT

<213> Homo sapiens

Gly Gly Pro Ser Tyr Lys Leu Pro Tyr Asn Thr Ser Asp Asp Pro Trp
20 25 30

Leu Thr Ala Tyr Asn Phe Leu Gln Lys Asn Asp Leu Asn Pro Met Phe 35 40 45

Leu Asp Gln Val Ala Lys Phe Ile Ile Asp Asn Thr Lys Gly Gln Met 50 55 60

Leu Gly Leu Gly Asn Pro Ser Phe Ser Asp Pro Phe Thr Gly Gly Gly 65 70 75 80

Arg Tyr Val Pro Gly Ser Ser Gly Ser Ser Asn Thr Leu Pro Thr Ala 85 90 95

Asp Pro Phe Thr Gly Ala Gly Arg Tyr Val Pro Gly Ser Ala Ser Met 100 105 110

Gly Thr Thr Met Ala Gly Val Asp Pro Phe Thr Gly Asn Ser Ala Tyr 115 120 125

Arg Ser Ala Ala Ser Lys Thr Met Asn Ile Tyr Phe Pro Lys Lys Glu 130 135 , 140

Ala Val Thr Phe Asp Gln Ala Asn Pro Thr Gln Ile Leu Gly Lys Leu 145 150 155 160

Lys Glu Leu Asn Gly Thr Ala Pro Glu Glu Lys Lys Leu Thr Glu Asp 165 170 175

Asp Leu Ile Leu Leu Glu Lys Ile Leu Ser Leu Ile Cys Asn Ser Ser 180 185 190

Ser Glu Lys Pro Thr Val Gln Gln Leu Gln Ile Leu Tro Lys Ala Ile 195 200 205

Asn Cys Pro Glu Asp Ile Val Phe Pro Ala Leu Asp Ile Leu Arg Leu 210 215 220

Ser Ile Lys His Pro Ser Val Asn Glu Asn Phe Cys Asn Glu Lys Glu 225 230 235 240

Gly Ala Gln Phe Ser Ser His Leu Ile Asn Leu Leu Asn Pro Lys Gly 245 250 255

Lys Pro Ala Asn Gln Leu Leu Ala Leu Arg Thr Phe Cys Asn Cys Phe 260 265 270

Val Gly Gln Ala Gly Gln Lys Leu Met Met Ser Gln Arg Glu Ser Leu 275 280 285

Met Ser His Ala Ile Glu Leu Lys Ser Gly Ser Asn Lys Asn Ile 290 295 300

```
<210> 819
<211> 18
<212> PRT
<213> Homo sapiens
<400> 819
His Ile Ala Leu Ala Thr Leu Ala Leu Asn Tyr Ser Val Cys Phe His
                                   10
Lys Asp
<210> 820
<211> 49
<212> PRT
<213> Homo sapiens
<400> 820
His Asn Ile Glu Gly Lys Ala Gln Cys Leu Ser Leu Ile Ser Thr Ile
                                   10 -
Leu Glu Val Val Gln Asp Leu Glu Ala Thr Phe Arg Leu Leu Val Ala
Leu Gly Thr Leu Ile Ser Asp Asp Ser Asn Ala Val Gln Leu Ala Lys
                            40
         35
Ser
<210> 821
<211> 30
<212> PRT
<213> Homo sapiens
<400> 821
Leu Gly Val Asp Ser Gln Ile Lys Lys Tyr Ser Ser Val Ser Glu Pro
Ala Lys Val Ser Glu Cys Cys Arg Phe Ile Leu Asn Leu Leu
             20 25 30
<210> 822
<211> 400
<212> PRT
<213> Homo sapiens
<400> 822
Tyr Glu Gly Lys Glu Phe Asp Tyr Val Phe Ser Ile Asp Val Asn Glu
                                   10
Gly Gly Pro Ser Tyr Lys Leu Pro Tyr Asn Thr Ser Asp Asp Pro Trp
                                25
```

Leu Thr Ala Tyr Asn Phe Leu Gln Lys Asn Asp Leu Asn Pro Met Phe 35 40 45

Leu Asp Gln Val Ala Lys Phe Ile Ile Asp Asn Thr Lys Gly Gln Met 50 . 55 60

Leu Gly Leu Gly Asn Pro Ser Phe Ser Asp Pro Phe Thr Gly Gly Gly 65 70 75 80

Arg Tyr Val Pro Gly Ser Ser Gly Ser Ser Asn Thr Leu Pro Thr Ala 85 90 95

Asp Pro Phe Thr Gly Ala Gly Arg Tyr Val Pro Gly Ser Ala Ser Met 100 105 110

Gly Thr Thr Met Ala Gly Val Asp Pro Phe Thr Gly Asn Ser Ala Tyr 115 120 125

Arg Ser Ala Ala Ser Lys Thr Met Asn Ile Tyr Phe Pro Lys Lys Glu 130 135 140

Ala Val Thr Phe Asp Gln Ala Asn Pro Thr Gln Ile Leu Gly Lys Leu 145 150 155 160

Lys Glu Leu Asn Gly Thr Ala Pro Glu Glu Lys Lys Leu Thr Glu Asp 165 170 175

Asp Leu Ile Leu Leu Glu Lys Ile Leu Ser Leu Ile Cys Asn Ser Ser 180 185 190

Ser Glu Lys Pro Thr Val Gln Gln Leu Gln Ile Leu Trp Lys Ala Ile 195 200 205

Asn Cys Pro Glu Asp Ile Val Phe Pro Ala Leu Asp Ile Leu Arg Leu 210 215 220

Ser Ile Lys His Pro Ser Val Asn Glu Asn Phe Cys Asn Glu Lys Glu 225 230 235 240

Gly Ala Gln Phe Ser Ser His Leu Ile Asn Leu Leu Asn Pro Lys Gly 245 250 255

Lys Pro Ala Asn Gln Leu Leu Ala Leu Arg Thr Phe Cys Asn Cys Phe 260 265 270

Val Gly Gln Ala Gly Gln Lys Leu Met Met Ser Gln Arg Glu Ser Leu 275 280 285

Met Ser His Ala Ile Glu Leu Lys Ser Gly Ser Asn Lys Asn Ile His 290 295 300

Ile Ala Leu Ala Thr Leu Ala Leu Asn Tyr Ser Val Cys Phe His Lys 305 310 315 320

Asp His Asn Ile Glu Gly Lys Ala Gln Cys Leu Ser Leu Ile Ser Thr 325 330 335

Ile Leu Glu Val Val Gln Asp Leu Glu Ala Thr Phe Arg Leu Leu Val

340 345 350

Ala Leu Gly Thr Leu Ile Ser Asp Asp Ser Asn Ala Val Gln Leu Ala 355 360 365

Lys Ser Leu Gly Val Asp Ser Gln Ile Lys Lys Tyr Ser Ser Val Ser 370 375 380

Glu Pro Ala Lys Val Ser Glu Cys Cys Arg Phe Ile Leu Asn Leu Leu 385 390 395 400

<210> 823

<211> 29

<212> PRT

<213> Homo sapiens

<400> 823

Leu Asn Leu Leu Leu Ile Thr Gln Lys Val Lys Cys Trp Asp Leu Gly
1 5 10 15

Ile Pro Ala Phe Gln Ile His Leu Gln Val Val Gly 20 25

<210> 824

<211> 29

<212> PRT

<213> Homo sapiens

<400> 824

Ile Lys His Pro Ser Val Asn Glu Asn Phe Cys Asn Glu Lys Glu Gly
1 5 10 15

Ala Gln Phe Ser Ser His Leu Ile Asn Leu Leu Asn Pro 20 25

<210> 825

<211> 22

<212> PRT

<213> Homo sapiens

<400> 825

Ala Ile Glu Leu Lys Ser Gly Ser Asn Lys Asn Ile His Ile Ala Leu

1 5 10 15

Ala Thr Leu Ala Leu Asn 20

<210> 826

<211> 23

<212> PRT

<213> Homo sapiens

```
Val Gln Leu Ala Lys Ser Leu Gly Val Asp Ser Gln Ile Lys Lys Tyr
                                                    15
                                 10
Ser Ser Val Ser Glu Pro Ala
      20
<210> 827
<211> 26
<212> PRT
<213> Homo sapiens
<400> 827
Tyr Glu Gly Lys Glu Phe Asp Tyr Val Phe Ser Ile Asp Val Asn Glu
           5 · 10
Gly Gly Pro Ser Tyr Lys Leu Pro Tyr Asn
           20
<210> 828
<211> 26
<212> PRT
<213> Homo sapiens
<400> 828
Ala Tyr Asn Phe Leu Gln Lys Asn Asp Leu Asn Pro Met Phe Leu Asp
                                  10
Gln Val Ala Lys Phe Ile Ile Asp Asn Thr
           20
<210> 829
<211> 15
<212> PRT
<213> Homo sapiens
<400> 829
Ser Phe Ser Asp Pro Phe Thr Gly Gly Gly Arg Tyr Val Pro Gly
1 5
                                 10
<210> 830
<211> 11
<212> PRT
<213> Homo sapiens
<400> 830
Thr Ala Asp Pro Phe Thr Gly Ala Gly Arg Tyr
               5
<210> 831
<211> 19
<212> PRT
```

```
<213> Homo sapiens
<400> 831
Thr Thr Met Ala Gly Val Asp Pro Phe Thr Gly Asn Ser Ala Tyr Arg
Ser Ala Ala
<210> 832
<211> 9
<212> PRT
<213> Homo sapiens
<400> 832
Asn Ile Tyr Phe Pro Lys Lys Glu Ala
<210>. 833
<211> 19
<212> PRT
<213> Homo sapiens
<400> 833
Thr Phe Asp Gln Ala Asn Pro Thr Gln Ile Leu Gly Lys Leu Lys Glu
                                10
                                                        15
Leu Asn Gly
<210> 834
<211> 30
<212> PRT
<213> Homo sapiens
<400> 834
Pro Glu Asp Ile Val Phe Pro Ala Leu Asp Ile Leu Arg Leu Ser Ile
Lys His Pro Ser Val Asn Glu Asn Phe Cys Asn Glu Lys Glu
                               25
<210> 835
<211> 31
<212> PRT
<213> Homo sapiens
<400> 835
Gln Phe Ser Ser His Leu Ile Asn Leu Leu Asn Pro Lys Gly Lys Pro
                           10
Ala Asn Gln Leu Leu Ala Leu Arg Thr Phe Cys Asn Cys Phe Val
                                25
             20
```

<210> 836

<211> 26

<212> PRT

<213> Homo sapiens

<400> 836

Gln Ala Gly Gln Lys Leu Met Met Ser Gln Arg Glu Ser Leu Met Ser 1 5 10 15

His Ala Ile Glu Leu Lys Ser Gly Ser Asn 20 25

<210> 837

<211> 139

<212> PRT

<213> Homo sapiens

<400> 837

Tyr Pro Asn Gln Asp Gly Asp Ile Leu Arg Asp Gln Val Leu His Glu
1 5 10 15

His Ile Gln Arg Leu Ser Lys Val Val Thr Ala Asn His Arg Ala Leu 20 25 30

Gln Ile Pro Glu Val Tyr Leu Arg Glu Ala Pro Trp Pro Ser Ala Gln 35 40 45

Ser Glu Ile Arg Thr Ile Ser Ala Tyr Lys Thr Pro Arg Asp Lys Val 50 55 60

Gln Cys Ile Leu Arg Met Cys Ser Thr Ile Met Asn Leu Leu Ser Leu 65 70 75 80

Ala Asn Glu Asp Ser Val Pro Gly Ala Asp Asp Phe Val Pro Val Leu 85 90 95

Val Phe Val Leu Ile Lys Ala Asn Pro Pro Cys Leu Leu Ser Thr Val 100 105 110

Gln Tyr Ile Ser Ser Phe Tyr Ala Ser Cys Leu Ser Gly Glu Glu Ser 115 120 125

Tyr Trp Trp Met Gln Phe Thr Ala Ala Val Glu 130 135

<210> 838

<211> 144

<212> PRT

<213> Homo sapiens

<400> 838

Tyr Pro Asn Gln Asp Gly Asp Ile Leu Arg Asp Gln Val Leu His Glu
1 5 10 15

His Ile Gln Arg Leu Ser Lys Val Val Thr Ala Asn His Arg Ala Leu

Gln Ile Pro Glu Val Tyr Leu Arg Glu Ala Pro Trp Pro Ser Ala Gln 35 40 45

Ser Glu Ile Arg Thr Ile Ser Ala Tyr Lys Thr Pro Arg Asp Lys Val 50 55 60

Gln Cys Ile Leu Arg Met Cys Ser Thr Ile Met Asn Leu Leu Ser Leu 65 70 75 80

Ala Asn Glu Asp Ser Val Pro Gly Ala Asp Asp Phe Val Pro Val Leu 85 90 95

Val Phe Val Leu Ile Lys Ala Asn Pro Pro Cys Leu Leu Ser Thr Val 100 105 110

Gln Tyr Ile Ser Ser Phe Tyr Ala Ser Cys Leu Ser Gly Glu Glu Ser 115 120 125

Tyr Trp Trp Met Gln Phe Thr Ala Ala Val Glu Phe Ile Lys Thr Ile 130 135 140

<210> 839

<211> 14

<212> PRT

<213> Homo sapiens

<400> 839

Tyr Pro Asn Gln Asp Gly Asp Ile Leu Arg Asp Gln Val Leu
1 10

<210> 840

<211> 11

<212> PRT

<213> Homo sapiens

<400> 840

Glu Ala Pro Trp Pro Ser Ala Gln Ser Glu Ile 1 5 10

<210> 841

<211> 21

<212> PRT

<213> Homo sapiens

<400> 841

Ser Gly Glu Glu Ser Tyr Trp Trp Met Gln Phe Thr Ala Ala Val Glu
1 5 10 15

Phe Ile Lys Thr Ile

```
<210> 842
<211> 18
<212> PRT
<213> Homo sapiens
<400> 842
Ala Asp Asp Phe Val Pro Val Leu Val Phe Val Leu Ile Lys Ala Asn
 1 . 5
                                  10
Pro Pro
<210> 843
<211> 12
<212> PRT
<213> Homo sapiens
<400> 843
Tyr Lys Thr Pro Arg Asp Lys Val Gln Cys Ile Leu
1 5
<210> 844
<211> 15
<212> PRT
<213> Homo sapiens
<400> 844
Gly Ala Asp Asp Phe Val Pro Val Leu Val Phe Val Leu Ile Lys
                                  10
                5
<210> 845
<211> 12
<212> PRT
<213> Homo sapiens
<400> 845
Pro Val Leu Val Phe Val Leu Ile Lys Ala Asn Pro
<210> 846
<211> 17
<212> PRT
<213> Homo sapiens
<400> 846
Ser Ala Arg Ala Ser Thr Gln Pro Pro Ala Gly Gln His Pro Gly Pro
                       . 10
               5
```

Cys

```
<210> 847
 <211> 33
 <212> PRT
 <213> Homo sapiens
 <400> 847
 Met Pro Gly Arg Trp Arg Trp Gln Arg Asp Met His Pro Ala Arg Lys
                   5
  1
                                     10
                                                         15
 Leu Leu Ser Leu Leu Phe Leu Ile Leu Met Gly Thr Glu Leu Thr Gln
                                  25
 Asp
 <210> 848
 <211> 19
 <212> PRT
 <213> Homo sapiens
 <400> 848
 Ser Ala Ala Pro Asp Ser Leu Leu Arg Ser Ser Lys Gly Ser Thr Arg
  1 5
                                    10
 Gly Ser Leu
 <210> 849
 <211> 20
 <212> PRT
 <213> Homo sapiens
 <400> 849
 Ala Ala Ile Val Ile Trp Arg Gly Lys Ser Glu Ser Arg Ile Ala Lys
                 5 ′
                                     10
 Thr Pro Gly Ile
<210> 850
 <211> 17
 <212> PRT
 <213> Homo sapiens
 <400> 850
 Pro Leu Gly Ile Thr Leu Pro Leu Gly Ala Pro Glu Thr Gly Gly Gly
                                     10
                                                         15
 Asp
 <210> 851
 <211> 20
 <212> PRT
```



<213> Homo sapiens

<400> 851

Cys Ala Ala Glu Thr Trp Lys Gly Ser Gln Arg Ala Gly Gln Leu Cys
1 5 10 15

Ala Leu Leu Ala

<210> 852

<211> 20

<212> PRT

<213> Homo sapiens

<400> 852

Phe Arg Gly Gly Thr Leu Val Leu Pro Pro Thr His Thr Pro Glu
1 5 10 15

Trp Leu Ile Leu.

20

<210> 853

<211> 28

<212> PRT

<213> Homo sapiens

<400> 853

Asn Ser Ala Arg Ala Ser Thr Gln Pro Pro Ala Gly Gln His Pro Gly
1 5 10 15

Pro Cys Met Pro Gly Arg Trp Arg Trp Gln Arg Asp. 20 25

<210> 854

<211> 80

<212> PRT

<213> Homo sapiens

<400> 854

Tyr Ile Val Gln Gly Thr Thr Ser Pro Phe Glu Met Pro Thr Ile Pro 1 5 10 15

Thr Pro Ala Arg His Arg Ala Pro His Ser Pro Pro Ala Gly His Val
- 20 25 30

Ala Thr Ala Pro Gln Ala Leu His Ile Lys Pro Ala Met His Thr Ala 35 40 45

Gly Arg His Ala Gly Cys Pro Ser Arg Ser Gln Arg His Asn Pro His 50 55 60

Arg Leu Phe Leu Glu Pro Pro Arg Ala Ala Leu Cys Pro Lys Gly Gly 65 70 75 80

```
<210> 855
<211> 97
<212> PRT
<213> Homo sapiens
<400> 855
Ala Ser Asn Ala His Ser Trp Pro Ala Arg Trp Leu Pro Phe Gln Val
                                 10
Ser Ala Ala Gln Ser Pro Pro Pro Val Ser Gly Ala Pro Lys Gly Ser
                               25. - 30
Val Met Pro Lys Gly Arg Met Ser His Ser Gly Val Cys Val Gly Cly
         35 . 40
Arg Thr Lys Val Pro Pro Pro Leu Lys Met Pro Gly Val Leu Ala Ile
Arg Leu Ser Leu Phe Pro Leu Gln Met Thr Ile Ala Ala Lys Asp Pro
 ·65 70
                                      75 -
Leu Val Leu Pro Phe Glu Leu Leu Ser Arg Glu Ser Gly Ala Ala Glu
                         90
               85 .
<210> 856
<211> 27
<212> PRT
<213> Homo sapiens
<400> 856
Gly Arg Met Ser His Ser Gly Val Cys Val Gly Gly Arg Thr Lys Val
                                  10
Pro Pro Pro Leu Lys Met Pro Gly Val Leu Ala
             20
                               25
<210> 857
<211> 13
<212> PRT
<213> Homo sapiens
Gly His Gln Thr Ala Pro Glu Thr Pro Ser Arg Ser Asp
<210> 858
 <211> 5
<212> PRT
<213> Homo sapiens
```

<400> 858 Ser Gln Thr Asp Arg <210> 859 <211> 22 <212> PRT <213> Homo sapiens <400> 859 Asn Ile Tyr Phe Lys Glu Lys Arg Lys Arg Gly Gly Ala Lys Met Ala Gly Ala Ile Ile Glu Asn 20 <210> 860 <211> 147 <212> PRT <213> Homo sapiens <400> 860 Val Tyr Leu Cys Ala Tyr Thr Ser Thr Ile Asn Val Thr Val Thr Thr Ala Asn Ala Lys Leu Ile Asn Met Cys Cys Leu Val Asp Ser Asn Thr 25 20 Arg Ser Cys Val Val Ile Asp Glu Gly Ile Phe Arg Ser Ala Glu Gln Phe Leu Ile Lys Phe Arg Asn Lys Gln Ser Thr Ile Phe Pro Arg Phe Thr Trp Glu Leu His Ser Ile Gly Leu Val Phe Ser Ile Val Phe Met Gly Trp Cys Ile Gln Glu His Gln Ser Lys Asp Ile Gln Ile Pro His 85 Pro Ile Asp Ala Cys Glu Lys Gly Thr Val His Leu Asp Cys Asp Ala 105 Ala Pro Phe Pro Met Ala Phe Arg Tyr Leu Thr Asn Asp Glu Glu Asp 115 Asp Ser His Gly Ser Ala Gly Gln Gly Asp Lys His Glu Glu Leu Glu 140 130 135

<210> 861 <211> 112

Pro Lys Asn

145

<212> PRT <213> Homo sapiens

<400> 861

Lys Met Pro Cys Arg Met Ser Pro Asn Ser Ser Ile Gln Val Gln Ser 1 5 10 15

Asn Pro Met Glu Asn His Ser Thr Gly Ile Leu Ile Lys Val Met Glu 20 . 25 30

Ile Pro Arg Ala Lys Met Thr Phe Ser Arg Ser Thr Gly Gly Arg Asp 35 40 45

Ile Met Val Ile Leu Leu Gln Tyr His Thr Ile Met Met Lys Met Leu 50 . 55 60

Gly Val Arg Lys Val Phe Met Ala Asn His Thr Leu Val Lys Pro Pro 65 70 75 80

Phe Trp Trp Ile Pro Thr Asn Arg Ile Ser Phe Ile Ser Pro Ile Pro 85 90 95

Thr Leu Ile Phe Phe Phe Ser Phe Thr Gly Ser Arg Met Phe Lys Arg
100 105 110

<210> 862

<211> 74

<212> PRT

<213> Homo sapiens

<400> 862

Thr Thr Lys Ser Glu Lys Met Gln Lys Ser Pro Trp Thr Phe Pro Trp 1 5 10 15

Leu Thr Val Met Thr His Leu Leu Ser Gly Leu Lys Trp Pro Met Lys 20 25 30

Glu Tyr His Gly Asn Ser Asn Ala Pro Ser His Leu Pro Arg Leu Gln

Ser Met Arg Ala Val Thr Met Asn Val Met Ser Phe Leu Ser Trp Lys
50 55 60

Leu Gly Leu Trp Pro Ile Ser Phe Thr Phe 65 70

<210> 863

<211> 31

<212> PRT

<213> Homo sapiens

<400> 863

Ile Lys Phe Arg Asn Lys Gln Ser Thr Ile Phe Pro Arg Phe Thr Trp

```
5
                                10
                                                  15
 1
Glu Leu His Ser Ile Gly Leu Val Phe Ser Ile Val Phe Met Gly
          20
                            25
<210> 864
<211> 29
<212> PRT
<213> Homo sapiens
<400> 864
Ser Ser Ile Gln Val Gln Ser Asn Pro Met Glu Asn His Ser Thr Gly
                                10
Ile Leu Ile Lys Val Met Glu Ile Pro Arg Ala Lys Met
           20 . 25
<210> 865
<211> 33
<212> PRT
<213> Homo sapiens
<400> 865
Leu Gly Val Arg Lys Val Phe Met Ala Asn His Thr Leu Val Lys Pro
               5 , 10
Pro Phe Trp Trp Ile Pro Thr Asn Arg Ile Ser Phe Ile Ser Pro Ile
                            25
          20
Pro
<210> 866
<211> 9
<212> PRT
<213> Homo sapiens
<400> 866
Thr Met Ala Ser Met Gly Leu Gln Val
1
              5
<210> 867
<211> 167
<212> PRT
<213> Homo sapiens
<400> 867
Lys Ser Trp Met Met Leu Trp Ala Val Gln Asp Thr Gly Thr Ile Thr
1 5
                   10 '
Ile Arg Pro Ala Asn Arg Asn Thr Thr Pro Ala Thr Ile Met Val Leu
20
                            25
```

Ala Leu Ala Leu Ser Ser Ser Arg Gln Leu Val His Leu Pro Pro Thr

35	40	45

Thr Asp Ser Ser Thr Pro Arg Ala Ala Thr Met Met Leu Met Met Thr 50 55 60

Arg Ala Arg Ala Ala Cys Arg Ser Cys Gly Ser Ala Ser Ser Glu Ser 65 70 75 80

Tyr Thr Leu His Cys Ile Trp Pro Val Leu Cys Thr Thr Gln Phe Ile 85 90 95

His Arg Pro Ser Gln Met Val Cys Glu Val Thr Met Leu Leu Pro Met 100 105 110

Lys Ala Val Thr Arg His Met Gly Ser Ala Gln His Ser Met Thr Ala 115 120 125

Ser Gln Pro Arg Thr Ala Ser Ala Met Pro Ile Thr Cys Ser Pro Met 130 135 140

Gly Ile Arg Leu Trp Gly Pro

<210> 868

<211> 28

<212> PRT

<213> Homo sapiens

<400> 868

Leu Gln Val Met Gly Ile Ala Leu Ala Val Leu Gly Trp Leu Ala Val 1 5 10 15

Met Leu Cys Cys Ala Leu Pro Met Trp Arg Val Thr 20 25

<210> 869

<211> 22

<212> PRT

<213> Homo sapiens

<400> 869

Ser Asn Ile Val Thr Ser Gln Thr Ile Trp Glu Gly Leu Trp Met Asn 1 5 10 15

Cys Val Val Gln Ser Thr 20

<210> 870

<211> 18

<212> PRT

<213> Homo sapiens

```
<400> 870
Gln Met Gln Cys Lys Val Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp
1 5 10 15

Leu Gln

<210> 871
<211> 18
<212> PRT
```

<210> 871 <211> 18 <212> PRT <213> Homo sapiens <400> 871

Lys Cys Thr Asn Cys Leu Glu Asp Glu Ser Ala Lys Ala Lys Thr Met

1 5 10 15

Ile Val

<210> 872 <211> 32 <212> PRT <213> Homo sapiens

<400> 872
Gly Val Val Phe Leu Leu Ala Gly Leu Met Val Ile Val Pro Val Ser
1 5 10 15

Trp Thr Ala His Asn Ile Ile Gln Asp Phe Tyr Asn Pro Leu Val Ala 20 25 30

<210> 873
<211> 12
<212> PRT
<213> Homo sapiens
<400> 873
Cys Cys Asn Cys Pro Pro Arg Thr Asp Lys Pro Tyr
1 5 10

<210> 874
<211> 14
<212> PRT
<213> Homo sapiens
<400> 874
Pro Phe Thr Ala Ile Ala Gly Ser Glu Ile Phe Ser Leu Glu

<210> 875

```
<211> 11
<212> PRT
<213> Homo sapiens
<400> 875 °
Ser Lys Thr Glu Ala Leu Thr Gln Ala Phe Arg
<210> 876
<211> 24
<212>- PRT
<213> Homo sapiens
<400> 876
Val Val His Thr Val Ser Leu His Glu Ile Asp Val Ile Asn Ser Arg
Thr Gln Gly Phe Leu Ala Leu Phe
             20
<210> 877
<211> 15
<212> PRT
<213> Homo sapiens
<400> 877
Pro Gly Val Leu Phe Ile Asp Glu Val His Met Leu Asp Ile Glu
                  5
<210> 878
<211> 280
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (197)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 878
Ala Gly Ile Arg Gln Arg Phe Ser Ala Arg Leu Trp Gln Leu Val Ser
Ile Met Ala Thr Val Thr Ala Thr Thr Lys Val Pro Glu Ile Arg Asp
                                  25
              20
Val Thr Arg Ile Glu Arg Ile Gly Ala His Ser His Ile Arg Gly Leu
                              40
Gly Leu Asp Asp Ala Leu Glu Pro Arg Gln Ala Ser Gln Gly Met Val
Gly Gln Leu Ala Ala Arg Arg Ala Ala Gly Val Val Leu Glu Met Ile
                                          75
                      70
```

Arg Glu Gly Lys Ile Ala Gly Arg Ala Val Leu Ile Ala Gly Gln Pro 85 90 95

Gly Thr Gly Lys Thr Ala Ile Ala Met Gly Met Ala Gln Ala Leu Gly
100 105 110

Pro Asp Thr Pro Phe Thr Ala Ile Ala Gly Ser Glu Ile Phe Ser Leu 115 120 125

Glu Met Ser Lys Thr Glu Ala Leu Thr Gln Ala Phe Arg Arg Ser Ile 130 135 140

Gly Val Arg Ile Lys Glu Glu Thr Glu Ile Ile Glu Gly Glu Val Val 145 150 155 160

Glu Ile Gln Ile Asp Arg Pro Ala Thr Gly Thr Gly Ser Lys Val Gly
165 170 175

Lys Leu Thr Leu Lys Thr Thr Glu Met Glu Thr Ile Tyr Asp Leu Gly
180 185 190

Thr Lys Met Ile Xaa Ser Leu Thr Lys Asp Lys Val Gln Ala Gly Asp 195 200 205

Val Ile Thr Ile Asp Lys Ala Thr Gly Lys Ile Ser Lys Leu Gly Arg 210 215 220

Ser Phe Thr Arg Ala Arg Glu Leu Arg Arg Tyr Gly Leu Pro Asp Gln 225 230 235

Val Arg Ala Val Pro Arg Trp Gly Ala Pro Glu Thr Gln Gly Gly Gly 245 250 255

Ala His Arg Val Pro Ala Arg Asp Arg Arg His Gln Leu Ser His Pro 260 265 270

Gly Leu Pro Gly Ala Leu Leu Arg 275 280

<210> 879

<211> 179

<212> PRT

<213> Homo sapiens

<220> ·

<221> SITE

<222> (178)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 879

Ser Pro Ser Thr Arg Arg Arg Ala Arg Ser Pro Ser Trp Ala Ala Pro 1 5 10 15

Ser His Ala Pro Ala Asn Tyr Asp Ala Met Gly Ser Gln Thr Lys Phe 20 25 30

Val Gln Cys Pro Asp Gly Glu Leu Gln Lys Arg Lys Glu Val Val His

35	40			45
			_	_

Thr Val Ser Leu His Glu Ile Asp Val Ile Asn Ser Arg Thr Gln Gly

Phe Leu Ala Leu Phe Ser Gly Asp Thr Gly Glu Ile Lys Ser Glu Val 75

Arg Glu Gln Ile Asn Ala Lys Val Ala Glu Trp Arg Glu Glu Gly Lys

Ala Glu Ile Ile Pro Gly Val Leu Phe Ile Asp Glu Val His Met Leu 105

Asp Ile Glu Ser Phe Ser Phe Leu Asn Arg Ala Leu Glu Ser Asp Met 125 120 115

Ala Pro Val Gln Gln Val Tyr Gly Asp Ala Val Arg Ala Leu Val Ala 135 130

Gly Ala Pro Asp Ser Arg Asp Ala Thr Val Gly Gly Leu Val Pro Asn 155 150

Ser Cys Ser Pro Gly Asp Pro Leu Val Leu Glu Arg Pro Pro Pro Arg 170

Trp Xaa Ser

<210> 880

<211> 89

<212> PRT

<213> Homo sapiens

<400> 880

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ala Thr Asn Arg Gly 10

Ile Thr Arg Ile Arg Gly Thr Ser Tyr Gln Ser Pro His Gly Ile Pro 25

Ile Asp Leu Leu Asp Arg Arg His Val Thr Leu Gln Gly Pro Val Glu 40 35

Glu Gly Glu Ala Leu Asp Val Gln His Val Asp Leu Val Asp Glu Gln 55

His Ser Arg Asp Asp Leu Arg Leu Ala Leu Leu Ala Pro Leu Ser His 75 70

Leu Gly Ile Asp Leu Leu Thr Asp Phe 85

<210> 881

<211> 30

<212> PRT

```
<213> Homo sapiens
<400> 881
Tyr Asp Ala Met Gly Ser Gln Thr Lys Phe Val Gln Cys Pro Asp Gly
          5
Glu Leu Gln Lys Arg Lys Glu Val Val His Thr Val Ser Leu
             20
<210> 882
<211> 31
<212> PRT
<213> Homo sapiens
<400> 882
Lys Ala Glu Ile Ile Pro Gly Val Leu Phe Ile Asp Glu Val His Met
                                    10
Leu Asp Ile Glu Ser Phe Ser Phe Leu Asn Arg Ala Leu Glu Ser
                            25
<210> 883
<211> 28
<212> PRT
<213> Homo sapiens
<400> 883
Glu Ala Thr Asn Arg Gly Ile Thr Arg Ile Arg Gly Thr Ser Tyr Gln
                               10
                5
Ser Pro His Gly Ile Pro Ile Asp Leu Leu Asp Arg
             20
<210> 884
<211> 22
<212> PRT
<213> Homo sapiens
<400> 884
Met Arg Ser Ala Arg Pro Ser Leu Gly Cys Leu Pro Ser Trp Ala Phe
                                    10
Ser Gln Ala Leu Asn Ile
             20
<210> 885
<211> 22
<212> PRT
<213> Homo sapiens
<400> 885
Leu Leu Gly Leu Lys Gly Leu Ala Pro Ala Glu Ile Ser Ala Val Cys
                                   10 .
```

Glu Lys Gly Asn Phe Asn 20 .

<210> 886

<211> 26

<212> PRT

<213> Homo sapiens

<400> 886

Val Ala His Gly Leu Ala Trp Ser Tyr Tyr Ile Gly Tyr Leu Arg Leu 1 5 10 15

Ile Leu Pro Glu Leu Gln Ala Arg Ile Arg
20 25

<210> 887

<211> 18

<212> PRT

<213> Homo sapiens

<400> 887

Thr Tyr Asn Gln His Tyr Asn Asn Leu Leu Arg Gly Ala Val Ser Gln 1 5 10 15

Arg Cys

<210> 888

<211> 43

<212> PRT

<213> Homo sapiens

<400> 888

Ile Leu Leu Pro Leu Asp Cys Gly Val Pro Asp Asn Leu Ser Met Ala 1 5 10 15

Asp Pro Asn Ile Arg Phe Leu Asp Lys Leu Pro Gln Gln Thr Gly Asp 20 25 30

Arg Ala Gly Ile Lys Asp Arg Val Tyr Ser Asn 35 40

<210> 889

<211> 45

<212> PRT

<213> Homo sapiens

<400> 889

Ser Ile Tyr Glu Leu Leu Glu Asn Gly Gln Arg Ala Gly Thr Cys Val

Leu Glu Tyr Ala Thr Pro Leu Gln Thr Leu Phe Ala Met Ser Gln Tyr 20 25 30

Ser Gln Ala Gly Phe Ser Gly Glu Asp Arg Leu Glu Gln 35 . 40 45

<210> 890

<211> 92

<212> PRT

<213> Homo sapiens

<400> 890

Ala Lys Leu Phe Cys Arg Thr Leu Glu Asp Ile Leu Ala Asp Ala Pro
1 5 10 15

Glu Ser Gln Asn Asn Cys Arg Leu Ile Ala Tyr Gln Glu Pro Ala Asp 20 25 30

Asp Ser Ser Phe Ser Leu Ser Gln Glu Val Leu Arg His Leu Arg Gln
35 40 45

Glu Glu Lys Glu Glu Val Thr Val Gly Ser Leu Lys Thr Ser Ala Val
50 55 60

Pro Ser Thr Ser Thr Met Ser Gln Glu Pro Glu Leu Leu Ile Ser Gly 65 70 75 80

Met Glu Lys Pro Leu Pro Leu Arg Thr Asp Phe Ser 85 , 90

<210> 891

<211> 43

<212> PRT

<213> Homo sapiens

<400> 891

Leu Leu Gly Leu Lys Gly Leu Ala Pro Ala Glu Ile Ser Ala Val Cys
1 5 10 15

Glu Lys Gly Asn Phe Asn Val Ala His Gly Leu Ala Trp Ser Tyr Tyr 20 25 30

Ile Gly Tyr Leu Arg Leu Ile Leu Pro Glu Leu 35 40

<210> 892

<211> 76

<212> PRT

<213> Homo sapiens

<400> 892

Leu Arg Leu His Ser Glu Lys Leu Pro Leu Ala Ala Arg Ser Ala Gly
1 5 10 15

Pro Ser Leu Leu Val Ile Ile Gln Ser Ser Gln Cys Pro Gly Gly Arg

Arg Tyr Arg Gly Ser Tyr Trp Arg Thr Val Arg Ala Cys Leu Gly Cys

45 40 35

Pro Leu Arg Arg Gly Ala Leu Leu Leu Ser Ile Tyr Phe Tyr Tyr 55 50

Ser Leu Pro Asn Ala Val Gly Pro Pro Phe Thr Trp 70

<210> 893

<211> 133

<212> PRT

<213> Homo sapiens

<400> 893

Val Trp Leu Thr Pro Thr Phe Ala Ser Trp Ile Asn Cys Pro Ser Arg 10

Pro Val Thr Val Leu Ala Ser Arg Ile Gly Phe Thr Ala Thr Ala Ser

Met Ser Phe Trp Arg Thr Gly Ser Gly Arg Ala Pro Val Ser Trp Ser 35

Thr Pro Pro Pro Cys Arg Leu Cys Leu Pro Cys His Asn Thr Val Lys

Leu Ala Leu Ala Gly Arg Ile, Gly Leu Ser Arg Pro Asn Ser Ser Ala 75

Gly His Leu Arg Thr Ser Trp Gln Met Pro Leu Ser Leu Arg Thr Thr 85

Ala Ala Ser Leu Pro Thr Arg Asn Leu Gln Met Thr Ala Ala Ser Arg 105

Cys Pro Arg Arg Phe Ser Gly Thr Cys Gly Arg Arg Lys Arg Lys Arg 120 115

Leu Leu Trp Ala Ala 130

<210> 894

<211> 87

<212> PRT

<213> Homo sapiens

<400> 894

Gly Val Cys Gln Val Ser Phe Met Gly Pro Ser Arg Pro Thr Pro His 10

Pro Ser Pro Leu Pro Leu Pro Gly Asp Ala Glu Leu Ser Gln Trp Tyr 25

Gln Gln Ala Pro Ser Pro Ser Gly Ser Trp Ser Cys Ser Ile Ile Gly 35

```
Glu Pro Gln Gln Lys Asn Gly Glu Glu Glu Glu Ala Glu Phe Gly Val
                         55
Leu Asn Pro Pro Ala Pro Thr Leu Gln His Gln Gly Cys Tyr Gly Leu
                    70
Ser Cys Arg Ala Thr Leu Ala
                 85
<210> 895
<211> 22
<212> PRT
<213> Homo sapiens
<400> 895
Thr Met Lys Leu Leu Lys Leu Arg Arg Asn Ile Val Lys Leu Ser Leu
                                     10
Tyr Arg His Phe Thr Asn
             20
<210> 896
<211> 22
<212> PRT
<213> Homo sapiens
<400> 896
Thr Leu Ile Leu Ala Val Ala Ala Ser Ile Val Phe Ile Ile Trp Thr
                                     10
Thr Met Lys Phe Arg Ile
             20
<210> 897
<211> 28
<212> PRT
<213> Homo sapiens
<400> 897
Val Thr Cys Gln Ser Asp Trp Arg Glu Leu Trp Val Asp Asp Ala Ile
Trp Arg Leu Leu Phe Ser Met Ile Leu Phe Val Ile
                                 25
             20
<210> 898
<211> 27
<212> PRT
<213> Homo sapiens
<400> 898
Met Val Leu Trp Arg Pro Ser Ala Asn Asn Gln Arg Phe Ala Phe Ser
```

Pro Leu Ser Glu Glu Glu Glu Glu Asp Glu Gln 2.5 <210> 899 <211> 27 <212> PRT <213> Homo sapiens <400> 899 Met Val Leu Trp Arg Pro Ser Ala Asn Asn Gln Arg Phe Ala Phe Ser 10 1 . 5 Pro Leu Ser Glu Glu Glu Glu Asp Glu Gln <210> 900 <211> 35 <212> PRT <213> Homo sapiens <400> 900 Lys Glu Pro Met Leu Lys Glu Ser Phe Glu Gly Met Lys Met Arg Ser 1 5 Thr Lys Gln Glu Pro Asn Gly Asn Ser Lys Val Asn Lys Ala Gln Glu 25 Asp Asp Leu 35 <210> 901 <211> 37 <212> PRT <213> Homo sapiens <400> 901 Lys Trp Val Glu Glu Asn Val Pro Ser Ser Val Thr Asp Val Ala Leu 10 Pro Ala Leu Leu Asp Ser Asp Glu Glu Arg Met Ile Thr His Phe Glu 25 20 Arg Ser Lys Met Glu 35 <210> 902 <211> 20 <212> PRT <213> Homo sapiens <400> 902 Asp Pro Arg Val Arg Leu Asn Ser Leu Thr Cys Lys His Ile Phe Ile

10

Ser Leu Thr Gln

```
<210> 903
 <211> 11
 <212> PRT
 <213> Homo sapiens
 <400> 903
 Asn Ala Phe Gly Arg His Ser Thr Ala Val Lys
 <210> 904
 <211> 283
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (16)
 <223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
 <222> (27)
 <223> Kaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (65)
 <223> Kaa equals any of the naturally occurring L-amino acids
 <400> 904
 Glu Ser Cys Leu Leu Cys Gly Ile Ser Glu Tyr Pro Ile Gln Arg Xaa
 Ile Cys Pro Gly Cys Phe Asp Pro Cys Arg Xaa Ala Phe Ser Ser Glu
                                  25
 Thr Leu Thr Gly Ser Asn Pro Gly His His Ser Gln Ser Gly Ile Trp
                              40
 His Arg Gln Ala Thr Pro Gly Val Thr Leu His Lys Val Val Ala
     50
                          55
                                              60
Xaa Ala Leu Tyr Leu Leu Phe Ser Gly Met Glu Gly Val Leu Arg Val
                      70
 Thr Gly Ala Gln Thr Asp Leu Ala Ser Leu Ala Phe Ile Pro Leu Ala
                                     90
 Phe Leu Asp Thr Ala Leu Cys Trp Trp Ile Phe Ile Ser Leu Thr Gln
             100
Thr Met Lys Leu Lys Leu Arg Arg Asn Ile Val Lys Leu Ser Leu
        115
                             120
```

Tyr Arg His Phe Thr Asn Thr Leu Ile Leu Ala Val Ala Ala Ser Ile 130 135 Val Phe Ile Ile Trp Thr Thr Met Lys Phe Arg Ile Val Thr Cys Gln 150 155 Ser Asp Trp Arg Glu Leu Trp Val Asp Asp Ala Ile Trp Arg Leu Leu 170 Phe Ser Met Ile Leu Phe Val Ile Met Val Leu Trp Arg Pro Ser Ala 180 185 Asn Asn Gln Arg Phe Ala Phe Ser Pro Leu Ser Glu Glu Glu Glu 195 200 Asp Glu Gln Lys Glu Pro Met Leu Lys Glu Ser Phe Glu Gly Met Lys Met Arg Ser Thr Lys Gln Glu Pro Asn Gly Asn Ser Lys Val Asn Lys 235 225 230 Ala Gln Glu Asp Asp Leu Lys Trp Val Glu Glu Asn Val Pro Ser Ser 250 Val Thr Asp Val Ala Leu Pro Ala Leu Leu Asp Ser Asp Glu Glu Arg 260 265 Met Ile Thr His Phe Glu Arg Ser Lys Met Glu 280 <210> 905 <211> 13 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids Tyr Glu Pro Met Asp Phe Xaa Met Ala Leu Ile Tyr Asp , 5 10 <210> '906 <211> 16 <212> PRT <213> Homo sapiens <400> 906 Ile Arg His Glu Leu Thr Val Leu Arg Asp Thr Arg Pro Ala Cys Ala 5 10

```
<210> 907
<211> 10
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 907
Met Asp Phe Xaa Met Ala Leu Ile Tyr Asp
                5
<210> 908
<211> 24
<212> PRT
<213> Homo sapiens
<400> 908
Met Gln Glu Met Met Arg Asn Gln Asp Arg Ala Leu Ser Asn Leu Glu
                                    10
Ser Ile Pro Gly Gly Tyr Asn Al'a
             20
<210> 909
<211> 25
<212> PRT
<213> Homo sapiens
<400> 909
Leu Arg Arg Met Tyr Thr Asp Ile Gln Glu Pro Met Leu Ser Ala Ala
                                                         15
                 5
Gln Glu Gln Phe Gly Gly Asn Pro Phe
             20
<210> 910
<211> 32
<212> PRT
<213> Homo sapiens
<400> 910
Ala Ser Leu Val Ser Asn Thr Ser Ser Gly Glu Gly Ser Gln Pro Ser
                 5
                                     10
Arg Thr Glu Asn Arg Asp Pro Leu Pro Asn Pro Trp Ala Pro Gln Thr
                                 25
```

```
<210> 911
<211> 71
<212> PRT
<213> Homo sapiens
<400> 911
Ser Gln Ser Ser Ser Ala Ser Ser Gly Thr Ala Ser Thr Val Gly Gly
                                   10
Thr Thr Gly Ser Thr Ala Ser Gly Thr Ser Gly Gln Ser Thr Thr Ala
            20
                   .25
Pro Asn Leu Val Pro Gly Val Gly Ala Ser Met Phe Asn Thr Pro Gly
                           40
        35
Met Gln Ser Leu Leu Gln Gln Ile Thr Glu Asn Pro Gln Leu Met Gln
Asn Met Leu Ser Ala Pro Tyr
 65
<210> 912
<211> 45
<212> PRT
<213> Homo sapiens
<400> 912
Met Arg Ser Met Met Gln Ser Leu Ser Gln Asn Pro Asp Leu Ala Ala
                     10
      . 5
Gln Met Met Leu Asn Asn Pro Leu Phe Ala Gly Asn Pro Gln Leu Gln
 20
Glu Gln Met Arg Gln Gln Leu Pro Thr Phe Leu Gln Gln
                           40
<210> 913
<211> 73
<212> PRT
<213> Homo sapiens
<400> 913
Met Gln Asn Pro Asp Thr Leu Ser Ala Met Ser Asn Pro Arg Ala Met
                                   10
                5
Gln Ala Leu Leu Gln Ile Gln Gln Gly Leu Gln Thr Leu Ala Thr Glu
                                25
Ala Pro Gly Leu Ile Pro Gly Phe Thr Pro Gly Leu Gly Ala Leu Gly
         35
                            40
Ser Thr Gly Gly Ser Ser Gly Thr Asn Gly Ser Asn Ala Thr Pro Ser
```

Glu Asn Thr Ser Pro Thr Ala Gly Thr

```
70
```

```
<210> 914
```

<211> 72

<212> PRT

<213> Homo sapiens

<400> 914

Thr Glu Pro Gly His Gln Gln Phe Ile Gln Gln Met Leu Gln Ala Leu 10

Ala Gly Val Asn Pro Gln Leu Gln Asn Pro Glu Val Arg Phe Gln Gln 25

Gln Leu Glu Gln Leu Ser Ala Met Gly Phe Leu Asn Arg Glu Ala Asn . 40

Leu Gln Ala Leu Ile Ala Thr Gly Gly Asp Ile Asn Ala Ala Ile Glu 50 . 55 ·

Arg Leu Leu Gly Ser Gln Pro Ser 65

<210> 915

<211> 45

iddayaga idayoi

<212> PRT

<213> Homo sapiens

<400> 915

Arg Asn Pro Ala Met Met Gln Glu Met Met Arg Asn Gln Asp Arg Ala 10

Leu Ser Asn Leu Glu Ser Ile Pro Gly Gly Tyr Asn Ala Leu Arg Arg 20

Met Tyr Thr Asp Ile Gln Glu Pro Met Leu Ser Ala Ala 35 . 40

<210> 916

<211> 13

<212> PRT

<213> Homo sapiens

<400> 916

Gly Asn Pro Phe Ala Ser Leu Val Ser Asn Thr Ser Ser 5 10

<210> 917

<211> 11

<212> PRT

<213> Homo sapiens

<400> 917

Glu Asn Arg Asp Pro Leu Pro Asn Pro Trp Ala

<210> 914

<211> 72

<212> PRT

<213> Homo sapiens

<400> 914

Thr Glu Pro Gly His Gln Gln Phe Ile Gln Gln Met Leu Gln Ala Leu 10

Ala Gly Val Asn Pro Gln Leu Gln Asn Pro Glu Val Arg Phe Gln Gln 25

Gln Leu Glu Gln Leu Ser Ala Met Gly Phe Leu Asn Arg Glu Ala Asn 40

Leu Gln Ala Leu Ile Ala Thr Gly Gly Asp Ile Asn Ala Ala Ile Glu 55

Arg Leu Leu Gly Ser Gln Pro Ser 70 65

<210> 915

<211> 45

<212> PRT

<213> Homo sapiens

<400> 915

Arg Asn Pro Ala Met Met Gln Glu Met Met Arg Asn Gln Asp Arg Ala 5 10

Leu Ser Asn Leu Glu Ser Ile Pro Gly Gly Tyr Asn Ala Leu Arg Arg 25 20

Met Tyr Thr Asp Ile Gln Glu Pro Met Leu Ser Ala Ala 40

<210> 916

<211> 13

<212> PRT

<213> Homo sapiens

<400> 916

Gly Asn Pro Phe Ala Ser Leu Val Ser Asn Thr Ser Ser 5 10

<210> 917

<211> 11

<212> PRT

<213> Homo sapiens

<400> 917

Glu Asn Arg Asp Pro Leu Pro Asn Pro Trp Ala

```
10
                 5
  1
<210> 918
<211> 17
<212> PRT
<213> Homo sapiens
<400> 918
Gly Lys Ile Leu Lys Asp Gln Asp Thr Leu Ser Gln His Gly Ile His
                                   10
                5
Asp
<210> 919
<211> 14
<212> PRT
<213> Homo sapiens
<400> 919
Gly Leu Thr Val His Leu Val Ile Lys Thr Gln Asn Arg Pro
                                    10
                 5
<210> 920
<211> 18
 <212> PRT
 <213> Homo sapiens
 Ser Glu Leu Gln Ser Gln Met Gln Arg Gln Leu Leu Ser Asn Pro Glu
                            10
                 5
 Met Met
 <210> 921
 <211> 14
 <212> PRT
 <213> Homo sapiens
 <400> 921
· Pro Glu Ile Ser His Met Leu Asn Asn Pro Asp Ile Met Arg
                                     10
 <210> 922
 <211> 18
 <212> PRT
 <213> Homo sapiens
 Arg Gln Leu Ile Met Ala Asn Pro Gln Met Gln Gln Leu Ile Gln Arg
                                     10
  1
                 5
```

```
Asn Pro
```

<210> 927 <211> 13

```
<210> 923
<211> 27
<212> PRT
<213> Homo sapiens
<400> 923
Asn Leu Cys His Val Asp Cys Gln Asp Leu Leu Asn Pro Asn Leu Leu
                        10
Ala Gly Ile His Cys Ala Lys Arg Ile Val Ser
            20
<210> 924
<211> 23
<212> PRT
<213> Homo sapiens
Leu Asp Gly Phe Glu Gly Tyr Ser Leu Ser Asp Trp Leu Cys Leu Ala
, 1 5
Phe Val Glu Ser Lys Phe Asn
         - 20
<210> 925
<211> 22
<212> PRT
<213> Homo sapiens
<400> 925
Asn Glu Asn Ala Asp Gly Ser Phe Asp Tyr Gly Leu Phe Gln Ile Asn
                                 10
Ser His Tyr Trp Cys Asn
            20
<210> 926
<211> 27
<212> PRT
<213> Homo sapiens
<400> 926
Asn Leu Cys His Val Asp Cys Gln Asp Leu Leu Asn Pro Asn Leu Leu
Ala Gly Ile His Cys Ala Lys Arg Ile Val Ser
             20
```

```
<212> PRT
<213> Homo sapiens
<400> 927
Glu Pro Ser Ala Leu Ser Cys Thr Ser Ser Pro Pro Arg
<210> 928
<211> 13
<212> PRT
<213> Homo sapiens
<400> 928
Ile Arg Glu Val Asn Glu Val Ile Gln Asn Pro Ala Thr
                 5
<210> 929
<211> 30
<212> PRT
<213> Homo sapiens
<400> 929
Ile Thr Arg Ile Leu Leu Ser His Phe Asn Trp Asp Lys Glu Lys Leu
                                      10
Met Glu Arg Tyr Phe Asp Gly Asn Leu Glu Lys Leu Phe Ala
             20
<210> 930
<211> 23
<212> PRT
<213> Homo sapiens
<400> 930
Asn Thr Arg Ser Ser Ala Gln Asp Met Pro Cys Gln Ile Cys Tyr Leu
Asn Tyr Pro Asn Ser Tyr Phe
             20
<210> 931
<211> 60
<212> PRT
<213> Homo sapiens
<400> 931
Cys Asp Ile Leu Val Asp Asp Asn Thr Val Met Arg Leu Ile Thr Asp
Ser Lys Val Lys Leu Lys Tyr Gln His Leu Ile Thr Asn Ser Phe Val
              20
Glu Cys Asn Arg Leu Leu Lys Trp Cys Pro Ala Pro Asp Cys His His
                              40
```

Val Val Lys Val Gln Tyr Pro Asp Ala Lys Pro Val 55 50 <210> 932 <211> 52 <212> PRT <213> Homo sapiens <400> 932 Cys Asp Ile Leu Val Asp Asp Asn Thr Val Met Arg Leu Ile Thr Asp 10 5 Ser Lys Val Lys Leu Lys Tyr Gln His Leu Ile Thr Asn Ser Phe Val 25 Glu Cys Asn Arg Leu Leu Lys Trp Cys Pro Ala Pro Asp Cys His His . 45 40 Val Val Lys Val . 50 <210> 933 <211> 60 <212> PRT <213> Homo sapiens <400> 933 Gly Cys Asn His Met Val Cys Arg Asn Gln Asn Cys Lys Ala Glu Phe 10 Cys Trp Val Cys Leu Gly Pro Trp Glu Pro His Gly Ser Ala Trp Tyr - 25 Asn Cys Asn Arg Tyr Asn Glu Asp Asp Ala Lys Ala Ala Arg Asp Ala 35 Gln Glu Arg Ser Arg Ala Ala Leu Gln Arg Tyr Leu <210> 934 <211> 60 <212> PRT <213> Homo sapiens <400> 934 Phe Tyr Cys Asn Arg Tyr Met Asn His Met Gln Ser Leu Arg Phe Glu

His Lys Leu Tyr Ala Gln Val Lys Gln Lys Met Glu Glu Met Gln Gln 25 30

His Asn Met Ser Trp Ile Glu Val Gln Phe Leu Lys Lys Ala Val Asp 35 40

Val Leu Cys Gln Cys Arg Ala Thr Leu Met Tyr Thr
50 55 60

<210> 935

<211> 60

<212> PRT

<213> Homo sapiens

<400> 935

Tyr Val Phe Ala Phe Tyr Leu Lys Lys Asn Asn Gln Ser Ile Ile Phe 1 5 10 15

Glu Asn Asn Gln Ala Asp Leu Glu Asn Ala Thr Glu Val Leu Ser Gly 20 25 30

Tyr Leu Glu Arg Asp Ile Ser Gln Asp Ser Leu Gln Asp Ile Lys Gln
· 35 40 45

Lys Val Gln Asp Lys Tyr Arg Tyr Cys Glu Ser Arg
50 55 60

<210> 936

<211> 37

<212> PRT

<213> Homo sapiens

<400> 936

Thr Gly Leu Glu Cys Gly His Lys Phe Cys Met Gln Cys Trp Ser Glu
1 5 10 15

Tyr Leu Thr Thr Lys Ile Met Glu Glu Gly Met Gly Gln Thr Ile Ser $20\,$

Cys Pro Ala His Gly 35 ·

<210> 937

<211> 21

<212> PRT

<213> Homo sapiens

<400> 937

Met Trp Gly Tyr Leu Phe Val Asp Ala Ala Trp Asn Phe Leu Gly Cys

1 5 10 15

Leu Ile Cys Gly Trp

<210> 938

<211> 46

<212> PRT

<213> Homo sapiens

<220>

```
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 938
Met His Phe Ile Ser Ser Gly Asn Val Ser Ala Ile Arg Ser Ser Ile
Leu Leu Arg Xaa Ser Leu Ser Tyr Leu Gly Asn Cys Leu Arg Val
             20
                                 25
Ser Ala Ile Phe Val Tyr Phe Leu Leu Phe Leu Leu Ser
<210> 939
<211> 80
<212> PRT
<213> Homo sapiens
<400> 939
Met Asp Gln Ala Leu Arg Gly Ser Pro Ser Glu Gly Phe Ser Thr Asp
                                    10
Pro Ser Pro Pro Gln Val Gly Arg Gln Ile Pro Ser Phe Pro Pro Trp
                                25
Arg Arg Leu Val Leu Pro Lys Ala Ser Gly Cys Phe Leu Glu Arg Glu
Trp Trp Leu Cys Val Phe Lys Leu Arg Thr Arg Pro Gly Ala Glu Ala
     50
                     55
His Ala Tyr Asn Ser Ser Ile Leu Gly Gly Arg Gly Lys Gly Ile Thr
                                        75
<210> 940
<211> 131
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (124)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 940
```

Met Leu Pro Ala Leu Ala Ser Cys Cys His Phe Ser Pro Pro Glu Gln

1 5 10 15

Ala Ala Arg Leu Lys Lys Leu Gln Glu Gln Glu Lys Gln Gln Lys Val

20 25 30

Glu Phe Arg Lys Arg Met Glu Lys Glu Val Ser Asp Phe Ile Gln Asp

Ser Gly Gln Ile Lys Lys Lys Phe Gln Pro Met Asn Lys Ile Glu Arg 50 55 60

40

Ser Ile Leu His Asp Val Val Glu Val Ala Gly Leu Thr Ser Phe Ser 65 70 75 80

Phe Gly Glu Asp Asp Asp Cys Arg Tyr Val Met Ile Phe Lys Lys Glu 85 90 95

Phe Ala Pro Ser Asp Glu Glu Leu Asp Ser Tyr Arg Arg Gly Glu Glu
100 105 110

Trp Asp Pro Gln Lys Ala Glu Glu Lys Arg Asn Xaa Lys Glu Leu Ala 115 120 125

Gln Arg Gln 130

<210> 941

<211> 76

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (47)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 941

Glu Glu Glu Ala Ala Gln Gln Gly Pro Val Val Val Ser Pro Ala Ser

Asp Tyr Lys Asp Lys Tyr Ser His Leu Ile Gly Lys Gly Ala Ala Lys 20 25 30

Asp Ala Ala His Met Leu Gln Ala Asn Lys Thr Tyr Gly Cys Xaa Pro 35 - 40 45

Val Ala Asn Lys Arg Asp Thr Arg Ser Ile Glu Glu Ala Met Asn Glu
50 55 60

Ile Arg Ala Lys Lys Arg Leu Arg Gln Ser Gly Glu 65 70 75

<210> 942

<211> 40

<212> PRT

<213> Homo sapiens

<400> 942

Pro Pro Arg Arg Pro Ala Gln Leu Pro Leu Thr Pro Gly Ala Gly Gln
1 5 10 15

Gly Ala Gly Arg Asp Lys Ala Ala Ile Arg Ala His Pro Gly Ala

Pro Pro Leu Asn His Leu Leu Pro

<213> Homo sapiens

35

<400> 943

Ala Val Pro Gln Ala Gly Gly Lys Gln Val Phe Asp Leu Ser Pro Leu

Glu Leu Gly Tyr Val Arg Gly Met Cys Val Cys Val 25 20

<210> 944 <211> 207

<212> PRT

<213> Homo sapiens

<220>

AODDWAGO AROZO

<221> SITE

<222> (124)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (178)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 944

Met Leu Pro Ala Leu Ala Ser Cys Cys His Phe Ser Pro Pro Glu Gln 10

Ala Ala Arg Leu Lys Lys Leu Gln Glu Gln Glu Lys Gln Gln Lys Val 2.0

Glu Phe Arg Lys Arg Met Glu Lys Glu Val Ser Asp Phe Ile Gln Asp

Ser Gly Gln Ile Lys Lys Lys Phe Gln Pro Met Asn Lys Ile Glu Arg 50 55

Ser Ile Leu His Asp Val Val Glu Val Ala Gly Leu Thr Ser Phe Ser 75 70

Phe Gly Glu Asp Asp Asp Cys Arg Tyr Val Met Ile Phe Lys Lys Glu

Phe Ala Pro Ser Asp Glu Glu Leu Asp Ser Tyr Arg Arg Gly Glu Glu 105

Trp Asp Pro Gln Lys Ala Glu Glu Lys Arg Asn Xaa Lys Glu Leu Ala 120 115

Gln Arg Gln Glu Glu Glu Ala Ala Gln Gln Gly Pro Val Val Val Ser 130 135 140

Pro Ala Ser Asp Tyr Lys Asp Lys Tyr Ser His Leu Ile Gly Lys Gly 145 150 155 160

Ala Ala Lys Asp Ala Ala His Met Leu Gln Ala Asn Lys Thr Tyr Gly
165 170 175

Cys Xaa Pro Val Ala Asn Lys Arg Asp Thr Arg Ser Ile Glu Glu Ala 180 185 190

Met Asn Glu Ile Arg Ala Lys Lys Arg Leu Arg Gln Ser Gly Glu
195 200 205

<210> 945

<211> 34

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 945

Leu Leu Cys Pro Val Leu Asn Ser Gly Xaa Ser Trp Asn Phe Pro His 1 $$ 5 $$ 10 $$ 15

Pro Ser Gln Pro Glu Tyr Ser Phe His Gly Phe His Ser Thr Arg Leu 20 25 30

Trp Ile

<210> 946

<211> 28

<212> PRT

<213> Homo sapiens

<400> 946

Pro Ser Thr Pro Trp Phe Leu Phe Leu Leu Gly Leu Thr Cys Pro Phe 1 5 10 15

Ser Thr Ser His Pro Arg Trp Asp Ser Ile Pro Pro 20 25

<210> 947

<211> 227

<212> PRT

<213> Homo sapiens

<400> 947

Glu Leu Ser Ile Ser Ile Ser Asn Val Ala Leu Ala Asp Glu Gly Glu

1				5					10	-				15	
Tyr	Thr	Cys	Ser 20	Ile	Phe	Thr	Met	Pro 25	Val	Arg	Thr	Ala	Lys 30		Leu
·Val	Thr	Val 35	Leu	Gly	Ile	Pro	Gln 40	Lys	Pro	Ile	Ile	Thr 45	Gly	Tyr	Lys
Ser	Ser 50	Leu	Arg	Glu	Lys	Asp 55	Thr	Ala	Thr	Leu	Asn 60	Cys	Gln	Ser	Ser
Gly 65	Ser	Lys	Pro	Ala	Ala 70	Arg	Leu	Thr	Trp	Arg 75		Gly	Asp	Gln	Glu 80
Leu	His	Gly	Glu	Pro 85	Thr	Arg	Ile	Gln	Glu 90	Asp	Pro	Asn	Gly	Lys 95	Thr
Phe	Thr	Val	Ser 100	Ser	Ser	Val	Thr	Phe 105	Gln	Val	Thr	Arg	Glu 110	Asp	Asp
Gly	Ala	Ser 115	Ile	Val	Cys	Ser	Val 120	Asn	His	Glu	Ser	Leu 125	Lys	Gly	Ala
Asp	Arg 130	Ser	Thr	Ser	Gln	Arg 135	Ile	Glu	Val	Leu	Tyr 140	Thr	Pro	Thr	Ala
Met 145	Ile	Arg	Pro	Asp	Pro 150	Pro	His	Pro	Arg	Glu 155		Gln	Lys	Leu	Leu 160
Leu	His	Cys	Glu	Gly 165	Arg	Gly	Asn	Pro	Val 170	Pro	Gln	Gln	Tyr	Leu 175	Trp
Glu	Lys	Glu	Gly 180	Ser	Val	Pro	Pro	Leu 185	Ľys	Met	Thr	Gln	Glu 190	Ser	Ala
Leu	Ile	Phe 195	Pro	Phe	Leu	Asn	Lys 200	Ser	Asp	Ser	Gly	Thr 205	Tyr	Gly	Cys
Thr	Ala 210	Thr	Ser	Asn	Met	Gly 215	Ser	Tyr	Lys	Ala	Tyr 220	Tyr	Thr	Leu	Asn
Val 225	Asn	Asp									-				
	D> 94 L> 64														
<212	2> P	RТ	sapie	ens									-		
)> 94 Leu		Ile	Ser 5	Ile	Ser	Asn	Val	Ala 10		Ala	Asp	Glu	Gly 15	Glu
Tyr	Thr	Cys	Ser 20	Ile	Phe	Thr	Met	Pro 25	Val	Arg	Thr	Ala	Lys 30	Ser	Leu

Val Thr Val Leu Gly Ile Pro Gln Lys Pro Ile Ile Thr Gly Tyr Lys

35 40 45

Ser Ser Leu Arg Glu Lys Asp Thr Ala Thr Leu Asn Cys Gln Ser Ser 50 55 60

<210> 949

<211> 65

<212> PRT

<213> Homo sapiens

<400> 949

Cys Gln Ser Ser Gly Ser Lys Pro Ala Ala Arg Leu Thr Trp Arg Lys

1 10 15

Gly Asp Gln Glu Leu His Gly Glu Pro Thr Arg Ile Gln Glu Asp Pro
20 25 30

Asn Gly Lys Thr Phe Thr Val Ser Ser Ser Val Thr Phe Gln Val Thr 35 40 45

Arg Glu Asp Asp Gly Ala Ser Ile Val Cys Ser Val Asn His Glu Ser 50 55 60

Leu 65

<210> 950

<211> 58

<212> PRT

<213> Homo sapiens

<400> 950

His Glu Ser Leu Lys Gly Ala Asp Arg Ser Thr Ser Gln Arg Ile Glu 1 5 10 15

Val Leu Tyr Thr Pro Thr Ala Met Ile Arg Pro Asp Pro Pro His Pro 20 25 30

Arg Glu Gly Gln Lys Leu Leu His Cys Glu Gly Arg Gly Asn Pro 35 40 45

Val Pro Gln Gln Tyr Leu Trp Glu Lys Glu
50 55

<210> 951

<211> 52

<212> PRT

<213> Homo sapiens

<400> 951

Trp Glu Lys Glu Gly Ser Val Pro Pro Leu Lys Met Thr Gln Glu Ser.
1 5 10 15

Ala Leu Ile Phe Pro Phe Leu Asn Lys Ser Asp Ser Gly Thr Tyr Gly 20 25 30

Cys Thr Ala Thr Ser Asn Met Gly Ser Tyr Lys Ala Tyr Tyr Thr Leu $35 \hspace{1cm} 40 \hspace{1cm} 45 \hspace{1cm} .$

Asn Val Asn Asp 50

<210> 952

<211> 36

<212> PRT

<213> Homo sapiens

<400> 952

Pro Ser Pro Val Pro Ser Ser Ser Ser Thr Tyr His Ala Ile Ile Gly
1 10 15

Gly Ile Val Ala Phe Ile Val Phe Leu Leu Leu Ile Met Leu Ile Phe 20 25 30

Leu Gly His Tyr 35

<210> 953

<211> 44

<212> PRT

<213> Homo sapiens

<400> 953

Leu Ile Arg His Lys Gly Thr Tyr Leu Thr His Glu Ala Lys Gly Ser 1 5 10 15

Asp Asp Ala Pro Asp Ala Asp Thr Ala Ile Ile Asn Ala Glu Gly Gly
20 25 30

Gln Ser Gly Gly Asp Asp Lys Lys Glu Tyr Phe Ile 35 40

<210> 954

<211> 123

<212> PRT

<213> Homo sapiens

<400> 954

Val Pro Glu Leu Pro Asp Arg Val His Gln Leu His Gln Ala Val Gln
1 10 15

Gly Cys Ala Leu Gly Arg Pro Gly Phe Pro Gly Gly Pro Thr His Ser 20 25 30

Gly His His Lys Ser His Pro Gly Pro Ala Gly Gly Asp Tyr Asn Arg

Cys Asp Arg Pro Gly Gln Val His Leu His Asn Pro Arg Gly Thr Gly

Arg Arg Gly Gln Leu His Pro Thr Ala Gly Pro Gly Val His Arg Arg 70

Ala Cys Pro Ser Gln Gln Leu Pro His Arg Leu Gly Pro Gly Val Pro 85

Cys Pro Ser Pro Ser Leu Thr Pro Val Leu Pro Ser Trp Thr Gln Ser 105 100

Trp Cys Gly Leu Pro Gly Tyr Thr Ser Ser Ser 115 120

<210> 955

<211> 22

<212> PRT

<213> Homo sapiens

<400> 955

Val His Gln Leu His Gln Ala Val Gln Gly Cys Ala Leu Gly Arg Pro

Gly Phe Pro Gly Gly Pro 20 -

<210> 956

<211> 42

<212> PRT

<213> Homo sapiens

<400> 956

Pro Thr His Ser Gly His His Lys Ser His Pro Gly Pro Ala Gly Gly 10

Asp Tyr Asn Arg Cys Asp Arg Pro Gly Gln Val His Leu His Asn Pro 20 , 25

Arg Gly Thr Gly Arg Arg Gly Gln Leu His 35

<210> 957

<211> 55

<212> PRT

<213> Homo sapiens

Leu His Pro Thr Ala Gly Pro Gly Val His Arg Arg Ala Cys Pro Ser 10 .

Gln Gln Leu Pro His Arg Leu Gly Pro Gly Val Pro Cys Pro Ser Pro 25

Ser Leu Thr Pro Val Leu Pro Ser Trp Thr Gln Ser Trp Cys Gly Leu

210

Pro Gly Tyr Thr Ser Ser Ser 50 <210> 958 <211> 276 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (10) <223> Xaa equals any of the naturally occurring L-amino acids · <400> 958 Ser Leu Arg Arg Pro Arg Ser Ala Ala Xaa Gln Thr Leu Thr Thr Phe Leu Ser Ser Val Ser Ser Ala Ser Ser Ser Ala Leu Pro Gly Ser Arg 25 20 Glu Pro Cys Asp Pro Arg Ala Pro Pro Pro Pro Arg Ser Gly Ser Ala 40 Ala Ser Cys Cys Ser Cys Cys Ser Cys Pro Arg Arg Ala Pro Leu Arg Ser Pro Arg Gly Ser Lys Arg Arg Ile Arg Gln Arg Glu Val 75 Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg 115 120 Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr 150 Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly 165 Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe 180 Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile 200 Ile Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile

215

```
His Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly 225 230 235 240
```

Leu Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys 245 250 255

Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Glu 260 265 270

Glu Leu Pro Lys 275

<210> 959

<211> 61

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

- <222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 959

Ser Leu Arg Arg Pro Arg Ser Ala Ala Xaa Gln Thr Leu Thr Thr Phe 1 5 . 10 15

Leu Ser Ser Val Ser Ser Ala Ser Ser Ser Ala Leu Pro Gly Ser Arg
20 25 30

Glu Pro Cys Asp Pro Arg Ala Pro Pro Pro Pro Arg Ser Gly Ser Ala 35 40 45

Ala Ser Cys Cys Ser Cys Cys Ser Cys Pro Arg Arg 50 55 60

<210> 960

<211> 52

<212> PRT

<213> Homo sapiens

<400> 960

Arg Ala Pro Leu Arg Ser Pro Arg Gly Ser Lys Arg Arg Ile Arg Gln 1 5 10 15

Arg Glu Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala 20 25 30

Gly Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly 35 40 45

Thr Pro Gly Ile 50

<210> 961

```
<211> 52
<212> PRT
<213> Homo sapiens
<400> 961
Thr Pro Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu
                                     10
Cys Leu Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln
                                                      30 -
                                 25
Cys Ser Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala
                             40
Glu Cys Thr Phe
     50
<210> 962
<211'> 66
<212> PRT
<213> Homo sapiens
<400> 962
Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly
Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe
                                                      30
Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile
                              40.
          35
 Ile Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile
                          55
 His Arg
  65
 <210> 963
 <211> 51
 <212> PRT
 <213> Homo sapiens
 <400> 963
 Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu
                                                           15
 Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly
                                   25
              20
 Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Glu Glu
                               40
          35
 Leu Pro Lys
```

```
<210> 964
 <211> 26
 <212> PRT
 <213> Homo sapiens
 <400> 964
 Thr Lys Lys Glu Asn Cys Arg Pro Ala Ser Leu Met Asn Ile Asp Thr
                                       10
 Lys Ile Leu Asn Lys Ile Leu Met Asn Gln
               20
<210> 965
 <211> 214
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (25)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (26)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (90)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (94)
 <223> Kaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 ·<222> (105)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <220>
 <221> SITE
 <222> (120)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 965
 Met Cys Asn Leu Pro Ile Lys Val Val Cys Arg Ala Asn Ala Glu Tyr
 Met Ser Pro Ser Gly Lys Val Pro Xaa Xaa His Val Gly Asn Gln Val
              20
 Val Ser Glu Leu Gly Pro Ile Val Gln Phe Val Lys Ala Lys Gly His
```

```
Ser Leu Ser Asp Gly Leu Glu Glu Val Gln Lys Ala Glu Met Lys Ala
50 55 60
```

Tyr Met Glu Leu Val Asn Asn Met Leu Leu Thr Ala Glu Leu Tyr Leu 65 70 75 80

Gln Trp Cys Asp Glu Ala Thr Val Gly Xaa Ile Thr His Xaa Arg Tyr 85 90 95

Gly Ser Pro Tyr Pro Trp Pro Leu Xaa His Ile Leu Ala Tyr Gln Lys
100 105 110

Gln Trp Glu Val Lys Arg Lys Xaa Lys Ala Ile Gly Trp Gly Lys Lys 115 120 125

Thr Leu Asp Gln Val Leu Glu Asp Val Asp Gln Cys Cys Gln Ala Leu 130 135 140

Ser Gln Arg Leu Gly Thr Gln Pro Tyr Phe Phe Asn Lys Gln Pro Thr 145 150 155 160

Glu Leu Asp Ala Leu Val Phe Gly His Leu Tyr Thr Ile Leu Thr Thr 165 170 175

Gln Leu Thr Asn Asp Glu Leu Ser Glu Lys Val Lys Asn Tyr Ser Asn 180 · 185 190

Leu Leu Ala Phe Cys Arg Arg Ile Glu Gln His Tyr Phe Glu Asp Arg 195 200 205

Gly Lys Gly Arg Leu Ser 210

<210> 966

<211> 44

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (25)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 966

Met Cys Asn Leu Pro Ile Lys Val Val Cys Arg Ala Asn Ala Glu Tyr

Met Ser Pro Ser Gly Lys Val Pro Xaa Xaa His Val Gly Asn Gln Val 20 25 30

Val Ser Glu Leu Gly Pro Ile Val Gln Phe Val Lys

```
<210> 967
<211> 44
<212> PRT
<213> Homo sapiens
<400> 967
Phe Val Lys Ala Lys Gly His Ser Leu Ser Asp Gly Leu Glu Glu Val
Gln Lys Ala Glu Met Lys Ala Tyr Met Glu Leu Val Asn Asn Met Leu
                                  25
Leu Thr Ala Glu Leu Tyr Leu Gln Trp Cys Asp Glu
         35
                             40
<210> 968
<211> 51
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (11)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (15)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (26)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 968
Leu Gln Trp Cys Asp Glu Ala Thr Val Gly Xaa Ile Thr His Xaa Arg
Tyr Gly Ser Pro Tyr Pro Trp Pro Leu Xaa His Ile Leu Ala Tyr Gln
             20
                                 25
Lys Gln Trp Glu Val Lýs Arg Lys Xaa Lys Ala Ile Gly Trp Gly Lys
                             40
Lys Thr Leu
```

```
Ser Gln Asp Gln Val Cys Cys Ile Gln Glu Thr His Leu Thr Gly Arg
                             40
 Asp Thr His Arg Leu Lys Ile Lys Gly Trp Arg Lys Ile Tyr Gln Ala
                        55 .
                                             60
    50.
 Asn Gly Lys Gln Lys Lys
<210> 972
 <211> 28
 <212> PRT
 <213> Homo sapiens
 <400> 972
 Phe Thr Leu Asn Val Asn Gly Leu Asn Ala Pro Asn Glu Arg His Arg
        . 5
                                 10
Leu Ala Asn Trp Ile Gln Ser Gln Asp Gln Val Cys
<210> 973
<211> 17
 <212> PRT
 <213> Homo sapiens
 <400> 973
 Thr His Leu Thr Gly Arg Asp Thr His Arg Leu Lys Ile Lys Gly Trp
                                     10
 Arg
 <210> 974
 <211> 14
 <212> PRT
<213> Homo sapiens
<400> 974
 Gly Trp Arg Lys Ile Tyr Gln Ala Asn Gly Lys Gln Lys Lys
                                     10
<210> 975
<211> 54
 <212> PRT
 <213> Homo sapiens
<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 975
```

```
Ile Tyr His Leu His Ser Trp Ile Phe Phe His Phe Lys Arg Ala Phe
                                                        15
  1
                                    10
Cys Met Cys Phe Ile Thr Met Lys Val Ile His Ala His Cys Ser Lys
                                25
Leu Arg Lys Cys Xaa Asn Ala Gln Ile Ser Val Phe Cys Thr Thr Leu
                            40
Thr Ala Ser Tyr Pro Thr
     50
<210> 976
<211> 23
<212> PRT
<213> Homo sapiens
<400> 976
Ile Tyr His Leu His Ser Trp Ile Phe Phe His Phe Lys Arg Ala Phe
 1
                 5
                                   10
Cys Met Cys Phe Ile Thr Met
             20
<210> 977
<211> 31
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 977
Lys Val Ile His Ala His Cys Ser Lys Leu Arg Lys Cys Xaa Asn Ala
                                   10
Gln Ile Ser Val Phe Cys Thr Thr Leu Thr Ala Ser Tyr Pro Thr
- 20
                                25
<210> 978
<211> 58
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 978
Trp Asn Leu Trp Tyr Phe Gln Arg Leu Arg Leu Pro Ser Ile Leu
```

497 Pro Gly Leu Val Leu Ala Ser Cys Asp Gly Pro Ser Xaa Ser Gln Ala 25 Pro Ser Pro Trp Leu Thr Pro Asp Pro Ala Ser Val Gln Val Arg Leu 40 Leu Trp Asp Val Leu Thr Pro Asp Pro Asn <210> 979 <211> 54 <212> PRT <213> Homo sapiens <400> 979 Gln Arg Gly Ile Tyr Arg Glu Ile Leu Phe Leu Thr Met Ala Ala Leu Gly Lys Asp His Val Asp Ile Val Ala Phe Asp Lys Lys Tyr Lys Ser 25 Ala Phe Asn Lys Leu Ala Ser Ser Met Gly Lys Glu Glu Leu Arg His 40

Arg Arg Ala Gln Met Pro

<210> 980 <211> 23 <212> PRT

<213> Homo sapiens

<400> 980

Trp Asn Leu Leu Trp Tyr Phe Gln Arg Leu Arg Leu Pro Ser Ile Leu
1 5 10 15

Pro Gly Leu Val Leu Ala Ser 20

<210> 981 <211> 191 <212> PRT <213> Homo sapiens

Ile Thr Trp Tyr Ser Glu Arg Val Leu Thr Glu Ile Ser Leu Gly Ser
20 25 30

Leu Leu Ile Leu Val Val Ile Arg Thr Ile Gln Tyr Asn Met Thr Arg
35 40 45

Thr Arg Asp Lys Tyr Leu His Thr Asn Cys Leu Ala Ala Leu Ala Asn

	Gln A
	Leu P
<u></u>	Met M
	Asn P 145
	Gln P
g C H	Leu V
	<210><211><211><212><213>
	<400> Glu A
	Ile T
	Leu I
	<210><211><211><212><213>

Met Ser Ala Gln Phe Arg Ser Leu His Gln Tyr Ala Ala Gln Arg Ile 75 70

Ile Ser Leu Phe Ser Leu Leu Ser Lys Lys His Asn Lys Val Leu Glu 90

la Thr Gln Ser Leu Arg Gly Ser Leu Ser Ser Asn Asp Val Pro 105 100

ro Asp Tyr Ala Gln Asp Leu Asn Val Ile Glu Glu Val Ile Arg 120

et Leu Glu Ile Ile Asn Ser Cys Leu Thr Asn Ser Leu His His 140 135

ro Asn Leu Val Tyr Ala Leu Leu Tyr Lys Arg Asp Leu Phe Glu 155

he Arg Thr His Pro Ser Phe Gln Asp Ile Met Gln Asn Ile Asp 170

al Ile Ser Phe Phe Ser Ser Arg Leu Leu Gln Ala Gly Ser 190 185 180

38

PRT

Homo sapiens

982

asp Asp Gly Phe Asn Arg Ser Ile His Glu Val Ile Leu Lys Asn

Thr Trp Tyr Ser Glu Arg Val Leu Thr Glu Ile Ser Leu Gly Ser . 20

Leu Ile Leu Val Val 35 .

> 983

> 53

> PRT

> Homo sapiens

<400> 983

Arg Thr Ile Gln Tyr Asn Met Thr Arg Thr Arg Asp Lys Tyr Leu His 10

Thr Asn Cys Leu Ala Ala Leu Ala Asn Met Ser Ala Gln Phe Arg Ser 25

Leu His Gln Tyr Ala Ala Gln Arg Ile Ile Ser Leu Phe Ser Leu Leu 40 35

```
Ser Lys Lys His Asn
    50
<210> 984
<211> 56
<212> PRT
<213> Homo sapiens
<400> 984
Ser Cys Leu Thr Asn Ser Leu His His Asn Pro Asn Leu Val Tyr Ala
      . 5
Leu Leu Tyr Lys Arg Asp Leu Phe Glu Gln Phe Arg Thr His Pro Ser
Phe Gln Asp Ile Met Gln Asn Ile Asp Leu Val Ile Ser Phe Phe Ser
              40
Ser Arg Leu Leu Gln Ala Gly Ser
50
                      55
<210> 985
<211> 31
<212> PRT
<213> Homo sapiens
<400> 985
Lys Lys His Asn Lys Val Leu Glu Gln Ala Thr Gln Ser Leu Arg Gly
1 5 . . 10
Ser Leu Ser Ser Asn Asp Val Pro Leu Pro Asp Tyr Ala Gln Asp
    . 20
                              25
<210> 986
<211> 15
<212> PRT
<213> Homo sapiens
<400> 986
Thr Ile Ser Asn Ser Ser Phe Ile Ser Gly Tyr Asn Ala Lys Tyr
 1 · 5
<210> 987
<211> 31
<212> PRT
<213> Homo sapiens
<400> 987
Leu Lys Val Ala Ala Ser Trp Glu Leu Ser Cys Gln Trp Asn Gly Ser
       . 5 10
Trp Lys Ser Leu Ser Lys Ala Ser Leu Arg Cys Pro Lys Thr Asp
```

20

```
<210> 988
```

<211> 125

<212> PRT

<213> Homo sapiens

<400> 988

Met Ala Asp Ile Gln Thr Glu Arg Ala Tyr Gln Lys Gln Pro Thr Ile
1 5 10 15

Phe Gln Asn Lys Lys Arg Val Leu Leu Gly Glu Thr Gly Lys Glu Lys 20 25 30

Leu Pro Arg Val Thr Asn Lys Asn Ile Gly Leu Gly Phe Lys Asp Thr 35 40 45

Pro Arg Arg Leu Leu Arg Gly Thr Tyr Ile Asp Lys Lys Cys Pro Phe 50 55 60

Thr Gly Asn Val Ser Ile Arg Gly Arg Ile Leu Ser Gly Val Val Thr
65 70 75 80

Gln Asp Glu Asp Ala Glu Asp His Cys His Pro Pro Arg Leu Ser Ala 85 90 95

Leu His Pro Gln Val Gln Pro Leu Arg Glu Ala Pro Gln Glu His Val
100 . 105 . 110

Cys Thr Pro Val Pro Leu Leu Gln Gly Arg Pro Asp Arg 115 120 125

<210> 989

<211> 79

<212> PRT

<213> Homo sapiens

<400> 989

Met Lys Met Gln Arg Thr Ile Val Ile Arg Arg Asp Tyr Leu His Tyr 1 5 10 15

Ile Arg Lys Tyr Asn Arg Phe Glu Lys Arg His Lys Asn Met Ser Val 20 25 30

His Leu Ser Pro Cys Phe Arg Asp Val Gln Ile Gly Asp Ile Val Thr
35 40 45

Val Gly Glu Cys Arg Pro Leu Ser Lys Thr Val Arg Phe Asn Val Leu
50 55 60

Lys Val Thr Lys Ala Ala Gly Thr Lys Lys Gln Phe Gln Lys Phe
65 70 75

<210> 990

<211> 30

<212> PRT

<213> Homo sapiens

```
<2.10> 969
<211> 43
<212> PRT
<213> Homo sapiens
<400> 969
Asp Gln Val Leu Glu Asp Val Asp Gln Cys Cys Gln Ala Leu Ser Gln
Arg Leu Gly Thr Gln Pro Tyr Phe Phe Asn Lys Gln Pro Thr Glu Leu
                               25
             20
Asp Ala Leu Val Phe Gly His Leu Tyr Thr Ile
<210> 970
<211> 41
<212> PRT
<213> Homo sapiens
<400> 970
Leu Thr Thr Gln Leu Thr Asn Asp Glu Leu Ser Glu Lys Val Lys Asn
                                   10
Tyr Ser Asn Leu Leu Ala Phe Cys Arg Arg Ile Glu Gln His Tyr Phe
                 25
Glu Asp Arg Gly Lys Gly Arg Leu Ser
<210> 971
<211> 70
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (2)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (4)
<223> Xaa equals any of the naturally occurring L-amino acids
Met Xaa Xaa Xaa Asn Ser His Ile Thr Ile Phe Thr Leu Asn Val Asn
                                    10
Gly Leu Asn Ala Pro Asn Glu Arg His Arg Leu Ala Asn Trp Ile Gln
                                 25
```